The Bristol
Medico-Chirurgical Journal.

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PRESENTATION TO MR. L. M. GRIFFITHS.

THE meeting of the Bristol Medico-Chirurgical Society of May 9th, 1900, was a memorable occasion in its history.

The PRESIDENT, Mr. W. H. Harsant, said that a meeting of the Committee of the Society was called to consider the most suitable means of expressing their sense of indebtedness to Mr. L. M. Griffiths on his retiring from the post of Assistant-Editor of the *Journal*, and he would call upon Dr. Shingleton Smith to make a statement.

Dr. SHINGLETON SMITH felt his duty was a very pleasurable one. On January 13th a meeting of the Committee took place, when he was requested to act as Treasurer, and he had now the pleasure to report that their suggestions had met with a most gratifying and liberal response. Various contributions had been received from eighty-two subscribers, amounting to £135 16s. It was felt that all this sum should not be expended on things useless to Mr. Griffiths, and, after ascertaining what would be acceptable to him, a bookcase suitably inscribed, containing a set of the *International Library of Famous Literature* (20 volumes), in three-quarter levant, was obtained; secondly, a silver bowl, with an inscription and a monogram; thirdly, an illuminated address, in a handsome Florentine frame, containing the names of the donors; also a book-plate, designed by Mr. W. V. Collette; and lastly, a cheque for the balance of the

amount. The Committee have carried out these proposals, and the result is now before the meeting.[1] At the top of the address is an ornamental device founded on the seal of the Bristol Medical School. As Mr. Griffiths was an old Bristol student, and as this Society always meets in the School, the device seemed a happy one. The seal consists of the City arms, supported by Æsculapius on the one side and by Hygeia on the other, and was originally designed by Dr. George Downing Fripp. The motto of the scroll has been altered for that of the *Journal*—

"Scire est nescire, nisi id me
Scire alius sciret."

This came from Lucilius, who wrote more than a century before Christ, and Dr. Smith believed that Mr. Griffiths had something to do with its selection. The illumination of the address has been done in a way which had met with the Committee's entire satisfaction, and it was certainly enhanced by the Florentine frame by Messrs. Frost and Reed. Before he sat down, Dr. Smith said he would like, as Editor of the *Journal*, to say a word. No member of the Society was in a better position than himself to realise what Mr. Griffiths had done for them, and no words could express quite adequately their appreciation of his work.

Dr. J. E. Shaw said that he would not like the occasion to pass by without saying a word, as Chairman of the Committee of the Bristol Medical Library. Nothing could surpass the excellent and noble work which Mr. Griffiths had carried on for the profession for so many years. Dr. Shaw had been associated with Mr. Griffiths in a literary way ever since he came to Clifton. In more recent years Mr. Griffiths had bestowed his high intellect on the beautiful Library in which they now were. Their esteemed friend had worked for many years in an unselfish spirit, not to advance his own interests, but to advance the commonweal of the profession in the neighbourhood.

Dr. J. G. Swayne, the *doyen* of the local profession, bore his testimony to the value of Mr. Griffiths's services.

[1] A print of the illuminated address, executed by Mr. William Bennett, forms our frontispiece, and the lettering is sufficiently clear to be easily read: the original, in colours, being a handsome work of art.

Mr. NELSON C. DOBSON said he was very glad to avail himself of the opportunity of saying a few words on this interesting occasion. It was an unique occasion in the history of the Society. He had been a member of the Committee from its formation, and when he recalled their modest aspirations, he might say that their success had far exceeded anything they had in contemplation. This success was due to no particular member, but if he were asked to name one member who had contributed to that success more than any other, he would name Mr. Griffiths. The members of the Society have evidence of this in the magnificent Library around them, due to his energy and persistent industry. His work in connection with the *Journal* he (Mr. Dobson) knew had been a labour of love. No doubt, had Mr. Griffiths devoted his great talents and his great industry to other channels he would have achieved a still higher professional eminence, and have reaped a considerable harvest of pecuniary gain. His reward he finds in the satisfaction of work well done. He thought Mr. Griffiths exemplified in his own person the words of his favourite author, in which Orlando says:

> "How well in thee appears
> The constant service of the antique world,
> When service sweat for duty, not for meed!"

Dr. C. STEELE remarked on the comprehensive work of Mr. Griffiths, in his capacity as Librarian, and on the great interest he showed in the members individually.

Mr. F. R. CROSS said he could not too strongly endorse what had already been said. The profession in the West of England was indebted to Mr. Griffiths most particularly for this Library, which is largely due to his work and knowledge of the subject and the time he has given to it. Mr. Cross had long felt that if there was any member who deserved well of his professional brethren, Mr. Griffiths was that man.

The PRESIDENT stated that Mr. Griffiths had laboured for seventeen years for the *Journal*. During half that time, he had had the pleasure of serving on the Committee with him. Few had any idea of the amount of time which Mr. Griffiths had given to the *Journal*. His industry and devoted labours had

contributed largely to the success it had attained. Nothing seemed too small for his research, and this went on from year to year, but there came a time when he found he must give it up. The Committee thought something should be done to mark the Society's appreciation of his services. The subject of a testimonial was brought forward, with the result laid before the meeting. The President then made the presentation.

Mr. L. M. GRIFFITHS, on rising to acknowledge the testimonial, met with a very hearty reception. He said: Mr. President and Gentlemen,—During the last few months many an Englishman has found himself in a tight place owing to the malice of his enemies. To-night you have the spectacle of another Englishman in a tight corner from a totally different cause—not the hatred of his foes, but the kindness of his friends.

It is true that I cannot plead, like some of my countrymen who have been in difficult positions lately, that I have been taken by surprise, for apart from the very explicit statement in the circular convening this meeting, those who have been principally concerned in this to me very gratifying presentation, knowing that I am a person of feeble lips and stammering tongue, kindly gave me early information of the project. But I am not sure that in this instance being forewarned was being forearmed, for I feel nearly overwhelmed by the all too flattering observations which have fallen from those who have spoken to-night, together with the cordial way in which those observations have been received, and I have no words with which to adequately thank you and the other donors for these very handsome and useful presents.

This is an occasion when it is appropriate to briefly review the history of the *Journal* with which I was so intimately connected for seventeen years. The Society which is its sponsor, and through the efforts of whose members the *Journal* became a possibility, was founded more than a quarter of a century ago, largely by the untiring energy of Dr. Shingleton Smith, who became its first honorary secretary. He, Mr. Dobson, and I are the only members who have been on the Committee from the beginning.

Four years passed, and in 1878 it was decided that some of the good work which the Society had done should find a permanent record in a volume of *Transactions*. Accordingly a volume was issued which, considering the quality of the matter it contained, was published at the exceedingly modest price of five shillings.

Another four years passed, and some members of the Committee thought the time had arrived for the publication of a second volume of *Transactions* covering that period. Feeling that such a retrospect was at its best by no means satisfactory, and knowing well the ability of my professional brethren in the district, I had the temerity to propose in Committee that a publication with a more frequent periodicity, and having the nature of a journal or magazine, should be attempted. This proposition received the support only of Greig Smith and myself. But when the question introduced by Dr. Beddoe was brought before a general meeting of the Society it was determined *nemine contradicente* that the effort should be made, and in 1883 the first number of the *Journal* was issued.

It was fortunate in its beginning. In the person of Greig Smith it had an Editor who *con amore* placed at its disposal his commanding and masterly genius, and his professional reputation gave it an impetus which was invaluable. It had also in Mr. Arrowsmith a publisher who took far more than a commercial interest in its welfare, and his local patriotism, so well known in many directions, resolved that it should take a form worthy of the profession which it represented. In this he was ably supported by his staff, many of whom have worked at it during the whole of its existence, and with whom it has been a pleasure to me to be associated in the position with which you honoured me.

The second number appeared after an interval of six months, but after the first year it became and has remained a quarterly publication. Before long it ought to become a monthly one, for there is enough local talent and energy to accomplish this.

Its professional success has been great. This is partly testified

by the fact that its contributors often find abstracts of their work chronicled in various countries of the world, and partly by its large exchange-list, for, with the exception of some few journals of a special nature which exchange only with their own kind, this includes most of the best medical periodical literature extant. An examination of the exchange-list and of the list of subscribers shows that the *Journal* now travels over the whole globe.

It was a financial success from the first, and it was mainly owing to its accumulated funds that we were able to start a Library in 1891. The part it has played and is playing in the formation of this Library is a considerable one. Publishers and authors have shown a strong desire to get its opinion of their books, and a special debt of gratitude is owing to all our reviewers for so generously allowing the volumes which they review to come to the Library for general use.

My journal-career has shown that in the work of such a publication there is room for the man of small parts. A successful medical journal must have at the head of its affairs an editor with a well-balanced mind, and among its staff and its contributors those who have clinical and literary accomplishments; but, in addition, it must have someone who will look after its business affairs, see that its matter is methodically arranged and in something like right proportions, and that it goes out with every "i" dotted, and with every "f" unbroken. It is because the *Journal* now has all these concerned in its direction that its success is assured. In some of the departments I have, of course, gained considerable experience, and if that experience is of service to anyone, I shall only be too glad to place it at his disposal. But the worth of experience is often over-rated,—especially by the possessor of it. It gets too much enamoured of itself, and it frequently gets too much deference paid to it. If it is only the experience of a mere plodder, and is not supplemented by an informing and advancing intelligence, it is tempted to disregard, or at all events not set sufficient store by, that cleverness which is—in the words an Australian quack doctor employed to describe his diagnosis—both intuitive and instantaneous.

Although my official connection with the *Journal* ceases, I am glad to say that I shall still be somewhat in touch with it, for the Committee have honoured me by asking me to continue to supply what I am given to understand are not its least acceptable pages; but I part from the greater work with many regrets, for though it occupied more time than perhaps I was justified in giving to it, it was a labour in which I delighted. I have felt all along that the professional life of a district is the richer for a *Journal* which worthily gives expression to that life. To that end I laboured, and it is peculiarly gratifying to me to receive the commendation of those who have been close observers of my work, and who have been brought into touch with it almost day by day.

I regret that my vocabulary is not equal to the task of recording my gratitude for the handsome way in which by word and deed you have acknowledged my *Journal* work, but in the absence of eloquent words in which justice should be done to an occasion like this, I ask you to accept my heartfelt thanks for all the sympathy and kindness you have shown me.

A RETROSPECT OF A SECOND SERIES OF FIFTY CONSECUTIVE INTRA-ABDOMINAL OPERATIONS.

BY

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As in the first series,[1] the term "intra-abdominal operation" is used in order that such operations as herniotomy, vaginal hysterectomy, &c. (which rarely require intra-abdominal manipulation of the kind here meant), may be excluded.

[1] *Bristol M.-Chir. J.*, 1898, xvi. 211.

No.	Sex and Age.	Medical Attendant.	Disease.	Treatment.	Result.
1	F. 44	... ...	Peritoneal adhesions	Adhesions freed...	Recovered.
2	M. 56	... ...	Malignant stricture of rectum	Sigmoidostomy	Death.
3	F. 19	... ...	Malignant growth in pelvis	Exploratory cœliotomy	Recovered.
4	F. 16	Dr. J. Young... ...	Appendicitis—diffuse peritonitis ...	Drainage	Death.
5	F. 37	Mr. F. N. Lewarne...	Ovarian adeno-cystoma (left); multiple cysts (right)	Ovariotomy (left); removal of right ovary and tube	Recovered.
6	M. 51	Dr. E. L. Lees ...	Malignant disease of ascending colon..	Exploratory cœliotomy	Recovered.
7	F. 47	Dr. J. C. Maclean ...	Retro-peritoneal lipoma	Exploratory cœliotomy	Recovered.
8	M. 33	Dr. M. G. Dobbyn ...	Infective cholangitis; portal pyæmia...	Cholecystostomy	Relieved.
9	F. 24	Mr. D. H. Forty ...	Appendicitis	Appendicectomy	Recovered.
10	F. 38	Dr. W. E Pountney..	Ovarian adeno-cystoma (left)	Ovariotomy	Death.
11	F. 58	Mr. F. Dymoke ...	Ovarian adeno-cystoma (left)	Ovariotomy	Recovered.
12	F. 31	Dr. J. C. Maclean ...	Pyo-salpinx (double)	Salpingo-oöphorectomy (double) ...	Recovered.
13	F. 38	Mr. L. H. Williams...	Pelvic abscess. ? Ruptured tubo-ovarian abscess	Drainage	Recovered.
14	M. 10	Dr. W. Brown ...	Appendicitis (gangrenous)	Appendicectomy	Death.
15	M. 62	Dr. W. McD. Ellis ...	Malignant stricture of ascending colon	"Short circuiting" (ileo-colostomy) ...	Relieved.
16	M. 40	Mr. D. H. Forty ...	Appendicitis	Appendicectomy	Recovered.
17	M. 6	Mr. D. H. Forty ...	Appendicitis	Drainage	Recovered.
18	F. 6	Dr. E. L. Lees ...	Tubercular peritonitis	Cœliotomy—curettage	Recovered.
19	M. 43	Mr. R. W. Statham ...	Intestinal obstruction; malignant stricture of sigmoid flexure	Sigmoidostomy; colectomy	Recovered.
20	F. 33	... ...	Salpingo-oöphoritis	Salpingo-oöphorectomy (double) ...	Recovered.
21	M. 46	Mr. H. T. Rudge ...	Cholæmia; malignant disease of pancreas	Cholecystostomy	Death.
22	F. 63	Mr. A. H. Haines ...	Acute cholecystitis; cholelithiasis ...	Cholecystostomy	Recovered.
23	F. 33	Dr. H. S. McQuade...	Carcinoma of pylorus	Exploratory cœliotomy	Recovered.
24	F. 33	Dr. J. C. Maclean ...	Ovarian adeno-cystoma (left); multiple cysts (right)	Ovariotomy (left); removal of right ovary and tube	Recovered.

25	F. 36	Dr. J. C. Maclean ...	Myo-fibroma of uterus	Retro-peritoneal hystero-myomectomy	Recovered.
26	M. 49	Mr. R. Kinneir ...	Cancerous stricture of descending colon	Colectomy	Death.
27	F. 29	Dr. R. R. Davidson...	Broad ligament cyst (right); cystic ovary (right)	Enucleation of cyst; salpingo-oöphorectomy	Recovered.
28	F. 51	Dr. E. Markham Skerritt	Appendicitis	Appendicectomy	Death.
29	F. 20	Dr. H. S. McQuade...	Ovarian adeno-cystoma (left)	Ovariotomy	Recovered.
30	F. 25	Mr. F. S. Cowan ...	Appendicitis; tubercular mesenteric glands	Appendicectomy; removal of glands	Recovered.
31	F. 49	Mr. W. Danne ...	Ovarian adeno-cystoma (right); multiple cysts (left)	Ovariotomy (right); salpingo-oöpho-rectomy (left)	Recovered.
32	F. 25	Dr. H. Skelton ...	Appendicitis	Appendicectomy	Recovered.
33	M. 48	Dr. C. E. Wigan ...	Intestinal obstruction	Enterostomy	Death.
34	F. 30	Dr. J. C Maclean ...	Ovarian adeno-cystoma (left)	Ovariotomy	Recovered.
35	F. 50	Dr. H. L. Ormerod...	Carcinoma of peritoneum	Exploratory cœliotomy	Recovered.
36	M. 62	Dr. H. Skelton ...	Cancer of rectum	Sigmoidostomy	Recovered.
37	F. 34	... ...	Dermoid of ovary (left)...	Ovariotomy	Recovered.
38	M. 73	Dr. E. Markham Skerritt	Cancer of rectum; intestinal obstruction	Sigmoidostomy	Death.
39	F. 44	... ...	Myo-fibroma of uterus	Retro-peritoneal hystero-myomectomy	Recovered.
40	F. 56	Mr. G. M. Swinhoe...	Hydrops of gall-bladder	Cholecystostomy	Recovered.
41	F. 56	Mr. E. F. Clowes ...	Ovarian adeno-cystoma (left)	Ovariotomy	Recovered.
42	M. 12	Dr. J. C. Maclean ...	Appendicitis	Appendicectomy	Recovered.
43	F. 60	Dr.W. A. Lauder Smith	Carcinoma of ascending colon ...	Colectomy	Death.
44	F. 32	Dr. J. Ambrose ...	Appendicitis	Drainage	Recovered.
45	M. 42	Dr. E. F. Martin ...	Appendicitis	Appendicectomy	Recovered.
46	F 59	... ...	Malignant stricture of descending colon	Colostomy	Death.
47	F. 15	Dr. H. S. McQuade...	Ovarian dermoid (left): ovarian adeno-cystoma (left)	Ovariotomy	Recovered
48	M. 58	Dr. S. Skinner ...	Vesico-intestinal fistula; intestinal obstruction	Enterostomy	Death.
49	M. 25	Dr. H. J. Doidge ...	Hepatic abscess	Trans-pleural hepatotomy	Recovered.
50	M. 45	Mr. W. Thompson ...	? Intestinal obstruction	Exploratory cœliotomy	Recovered.

This series is continuous with the last, and contains the usual diversity of cases met with in abdominal surgery.

The mortality of cases of intestinal obstruction, including malignant disease of the intestine, is unnecessarily high. Every one now recognises the desirability of early operation in strangulated external hernia, and yet in acute internal obstructions—where the pathological results are more or less identical with those obtaining in external hernia—there is too often a tendency to delay operation until the chances of success of operative interference have been reduced to a minimum, and the patient pays the penalty.

The difficulty in diagnosis is, doubtless, largely answerable for this deplorable hesitancy in necessary treatment, but I cannot emphasise too strongly the duty of urging an exploratory cœliotomy (for the actual cause of obstruction is frequently undiscoverable before operation) directly the diagnosis of acute intestinal obstruction is established or is reasonably suspected to exist. In "late" cases the patient does not die from operation, but from the previous absorption of the accumulated poisonous products of his own intestines.

Much the same remarks might be made with regard to the more chronic forms of obstruction usually associated with malignant disease. The operations of sigmoidostomy, ileo-colostomy, &c., will considerably diminish in number when it becomes more widely recognised that by early operation alone can we hope to freely remove malignant growths of the intestine, which, under such favourable circumstances, show less tendency to recurrence than malignant disease in many parts of the body. A radical operation (enterectomy, &c.), performed in an early stage, may not only rid the patient of his disease for ever, but is far less dangerous to life than a palliative operation (ileo-colostomy, &c.) which has been deferred until the vital functions have been reduced to a low ebb by constant vomiting, continued pain, and other results of the absorption of the products of intestinal putrefaction and stoppage of the circulation of the contents of the intestines.

The tabular list of cases (pp. 104 and 105) is a chronological one, and, therefore, no attempt has been made at classification.

In discussing these cases, those of a similar nature will be grouped together; but details will only be given in the more important ones, and comment made where desirable.

A.—**Operations for Diseases of the Ovaries and Fallopian Tubes.** Cases 5, 10, 11, 12, 13, 20, 24, 27, 29, 31, 34, 37, 41, and 47.

Clinically, these cases may be divided into—

Adeno-cystomata.—Cases 5, 10, 11, 24, 29, 31, 34, 41, and 47.

Intra-ligamentary cyst.—Case 27.

Salpingo-oöphoritis.—Cases 12, 13, and 20.

Dermoid tumours.—Cases 37 and 47.

The **adeno-cystomata** call for no special comment, but it is noticeable that in a large proportion of the cases the opposite ovary was so far degenerated as to require removal. A wise conservatism should however be practised whenever possible, and in young women it is desirable that any considerable portion of healthy ovarian tissue should be preserved by the adoption of a resection rather than a complete removal of the organ.

Intra-ligamentary cysts are doubtless usually produced by the growth of ovarian tumours between the layers of the broad ligament. The case to be presently narrated, in which the cyst in the ovary appeared to be quite distinct from the intra-ligamentary cyst, would suggest that in some cases the origin of these tumours is not always so easily explained. These tumours are closely applied to the uterus, and they possess no pedicle as in the ordinary ovarian adeno-cystoma. Their removal is frequently attended with difficulty, but the necessary manipulations are much facilitated by the adoption of the Trendelenburg posture. The method of operation is sufficiently indicated in the following description :—

Case 27.—**Intra-ligamentary cyst—Enucleation.**—Two years ago the patient was ill for a fortnight with pain in the right side of the abdomen, fever and vomiting. A large swelling was noticed in the right iliac region, and the case was regarded as one of intra-peritoneal hæmatocele. The swelling became rapidly absorbed. A similar attack occurred five months ago, and since then there had been almost continuous pain on the right side of the abdomen. On examination, I found the uterus retroverted, not enlarged, but with some impairment

of its mobility. On the right of the uterus, and closely connected with it, was a smooth globular cystic swelling about the size of a hen's egg, occupying the broad ligament, and felt bimanually to reach well above Poupart's ligament. The tumour appeared fixed by infiltration in the broad ligament. A median incision was made above the pubes. On opening the peritoneum considerable matting was found on the right side of the pelvis, and several bands of omentum—attached to the uterus, ovary, etc.—were tied off. The right ovary was very adherent and cystic, and in breaking down some adhesions the cyst in the ovary burst and a chocolate-coloured fluid escaped. The ovarian vessels were then ligatured near the pelvic brim, and the broad ligament opened up by a transverse incision over the top of the cyst within it. The intra-ligamentary cyst was then enucleated by gradually separating the surrounding broad ligament with the fingers. In doing this the cyst burst and a clear fluid escaped. A ligature was then placed near the right cornu of the uterus, so as to include the utero-ovarian anastomosis, and the collapsed intra-ligamentous and ovarian cysts and the Fallopian tube were then cut away. No drainage was employed. The patient made a speedy recovery.

The performance of **salpingo-oöphorectomy** in cases of chronic tubal and ovarian inflammation, pyosalpinx, &c., is often one of great difficulty from the complexity of the adhesions. In some of these cases it is easier to remove the uterus with the appendages (hystero-salpingo-oöphorectomy) than the appendages only, though this was not necessary in Cases 12 and 20. The Trendelenburg position is most useful in dealing with the firm adhesions existing in these cases. The pus in many cases of **pyosalpinx** is fortunately sterile, as was found in Case 12. It is interesting to notice that menstruation continued to be regular in Cases 12 and 20, in spite of the removal of the appendages.

Vaginal drainage has a wide field of application in "pelvic abscess" in the female, whether the abscess is a result of a burst tubo-ovarian abscess, appendicitis, or other cause. In cases such as the following, where an abdominal section discloses the existence of a large abscess burrowing deeply among the pelvic viscera, I cannot speak too highly of its value, for I believe its adoption has resulted in the saving of lives that would have been lost by abdominal drainage alone.

CASE 13.—**Ruptured tubo-ovarian abscess—Abdomino-vaginal drainage.**—The patient had attacks of pelvic peritonitis, eleven, four, and two years ago respectively. Three weeks before I saw her a rigor occurred, accompanied by considerable lumbar pain, followed in nine days by sudden collapse, great hypogastric pain and abdominal distension. The temperature varied from 99° to 103°. The day before I saw her there was further collapse and pain, and the abdominal distension

increased. There was dorsal decubitus, with the legs drawn up; the expression was one of great anxiety; the tongue was furred and dry, and the pulse very soft. The abdomen was greatly distended, and universally tympanitic. Tenderness was general over the abdomen, but more marked in the hypogastrium. *Per vaginam*, the uterus was embedded in a hard inflammatory mass, which occupied the whole pelvic floor, and no soft spot could be felt. A median incision was made half-way between the umbilicus and pubes. On opening the peritoneum, a good deal of free turbid fluid escaped. Coils of intestine in the hypogastrium and pelvis were matted together by soft adhesions. As the adhesions were separated loculi containing fluid were opened up, the fluid becoming more turbid as the pelvis was approached. Deep in the pelvis a large abscess was opened, containing thick stinking pus, which surrounded the uterus and adnexa. Forceps were passed through the abdominal opening and pushed behind the uterus in Douglas's pouch, so as to cause a bulging in the vagina, where an opening was then made which permitted the passage of a large tube, about sixteen inches long, so that one end emerged at the vulva and the other at the abdominal incision. The pelvis was sponged out, but no irrigation was employed until five days later. For some days the patient appeared scarcely likely to recover, but in the course of a week a distinct improvement occurred, in spite of the formation of a fæcal fistula. The escape of fæces ceased spontaneously, the abscess cavity gradually closed, and the patient made a good recovery, though it subsequently became necessary to open up a small sinus caused by the drainage tube in the posterior vaginal fornix.

Dermoid tumours—and adeno-cystomata—of the ovary are very uncommon at 15 years of age, as in Case 47, which is the earliest age at which I have been called upon to operate for these conditions. Case 47 is also interesting because she was sister to Case 29 (who was only 20 years of age when I removed an ovarian adeno-cystoma), and because dermoid and adeno-cystomatous tumours existed separately in the same ovary.

CASE 47.—**Dermoid tumour and adeno-cystoma of left ovary.**—The patient had menstruated regularly for two years. Gradual enlargement of the abdomen had been noticed for twelve months. In the left iliac fossa, close to the anterior iliac spines, a rounded elastic swelling the size of an orange could be felt, and apparently connected with this was another fluctuating swelling, which reached to just above the level of the umbilicus and to the outer edge of the right rectus. On opening the abdomen in the median line, a large multilocular cyst presented, which when tapped was found to contain a white glairy fluid (220 ozs., neutral reaction, sp. gr. 1014). Attached to this was the "lump" which was felt before operation in the left iliac fossa, and this proved to be a dermoid tumour containing a yellowish-brown grumous fluid (28 ozs., neutral reaction, sp. gr. 1006), a good deal of long light hair (much the same colour as that of the patient's head), and a large plate of bone, about two inches long and one inch broad, bearing some teeth and what appeared to be tooth-sacs attached by pedicles. The parovarium was unaffected. The tumours and the left uterine

appendage were removed, after tying with an interlocking stitch. Two small cysts in the right ovary were snipped and a portion of their walls cut away, the ovary being conserved. Recovery was uneventful.

B.—**Hystero-myomectomy for Myo-fibroma of the Uterus.**—Cases 25 and 49.

When the conservative operation of myomectomy is unsuitable, and it is necessary to remove uterine fibroids by hystero-myomectomy, the "retro-peritoneal" treatment of the pedicle has many self-evident advantages over the older "extra-peritoneal" method, which is now rarely used. In myo-fibromata the uterus may be amputated at the supra-vaginal cervix: it is unnecessary to remove the whole uterus, as would be done in cases of carcinoma. There are several ways of performing this operation, but one of the simplest methods is that which was employed in the following example:—

Case 25.—**Myo-fibroma uteri—Retro-peritoneal hystero-myomectomy.**—A gradual enlargement of the abdomen had been noticed for about four years. There was great pain—almost constant—in the back and groins, and micturition was frequent. Menstruation had latterly been excessive, and the patient was steadily losing ground. The lower abdomen was occupied by a firm, nodular, globular tumour in the mid-line, rising out of the pelvis and reaching above the umbilicus. *Per vaginam*, this was felt to be part of a generally enlarged uterus, the right broad ligament being considerably involved in the growth. An incision four and half inches long was made in the median line, between the umbilicus and pubes. On opening the peritoneum the tumour presented in the middle line, and both ovaries were found to be enlarged—the right ovary being also cystic. The Trendelenburg posture was then adopted, and the tumour delivered through the parietal wound by means of a myoma screw. The right ovarian vessels were tied in two places, close to the pelvis, beyond the fimbriated extremity of the Fallopian tube, and the tissues between the ligatures divided. The right round ligament was tied in two places and divided between the ligatures. The left ovarian vessels and round ligament were then similarly tied and divided. In this way the broad ligament on either side was opened up. The incisions dividing the round ligaments were then joined by an incision extending across the anterior surface of the tumour, situated about two-thirds of the way down from the summit of the tumour to the supra-vaginal cervix. This transverse incision involved the peritoneum only, and by peeling downwards the peritoneal flap so formed the bladder was freely separated from the tumour. On passing the finger down into the connective tissue at the sides of the uterus the uterine arteries could be felt pulsating, and these were tied on either side by means of silk carried under the vessels with curved pedicle forceps. An incision was then made through the peritoneum on the posterior surface of the tumour. The ends of this incision joined that on the anterior surface, so as to encircle

the tumour. A posterior flap of peritoneum was then formed by peeling this structure off the tumour, as in the formation of the anterior peritoneal flap. The tumour was amputated by cutting across it just above the top of the supra-vaginal cervix. The amputation was made in a cup-shaped fashion, so as to leave a concave stump. A second ligature was placed on each ovarian and uterine vessel, and the anterior and posterior flaps of peritoneum were united over the stump by means of a continuous silk suture. The parietal wound was completely closed. The wound was dressed three times at intervals of a week, the stitches being removed at the last dressing when the patient was able to walk about.

C.—**Operation for Hepatic Abscess.**—CASE 49.

I have elsewhere[1] referred to the desirability of treating cases of hepatic abscess and of hydatid of the liver by direct hepatotomy rather than by operation *à deux temps*. The majority of liver abscesses tend to cause enlargement of that organ downwards, so that direct hepatotomy can be carried out by the ordinary anterior abdominal incision. In some cases, however, the abscess tends to encroach upon the thorax, and then the most direct route for purposes of evacuation is across the pleural cavity. This method of opening hepatic abscesses is exemplified in the following case:

CASE 49.—**Hepatic abscess—Trans-pleural hepatotomy.**—The patient had lived in India for six years, and there contracted ague six years, and typhoid fever two years, before the present illness. Five weeks before he came under observation he "caught cold," and was seized with griping pains in the abdomen. A swelling on the right side of the abdomen developed, and there was progressive emaciation and weakness. He looked profoundly ill, with sallow complexion but no jaundice. There was a considerable bulging and much tenderness over the whole liver area, and a coarse friction could be heard in the right axillary line of the lower part of the thorax and along the neighbouring costal margin. Dulness extended up the back to nearly half-way up the scapula, but breath sounds were clearly heard and there was no diminution of vocal fremitus or vocal resonance. An incision was made along the ninth rib, half-way between the spine and sternum, and about two and a half inches of the rib were excised. The costal pleura was opened, so as to expose the pleura covering the diaphragm. The edges of the incision in the costal pleura were then sewn down to the pleura covering the diaphragm, so as to include a circle of the latter about one and a quarter inches in diameter. By this means the pleural cavity was entirely shut off from the area of operation enclosed by the continuous silk stitch. An incision was then made through the diaphragm into the liver beyond, and thirty-two ounces of thick yellow pus were evacuated from a smooth-walled cavity in the liver which could not be entirely explored. A large drainage tube was placed in the cavity, which was irrigated daily after the patient had begun to gain strength. A bacteriological examination

[1] *Bristol M.-Chir. J.*, 1898, xvi. 222; and *Brit. M. J.*, 1898, ii. 149.

of the pus proved it to be sterile. The right lung—which necessarily collapsed on opening the pleura—soon expanded, and rapid improvement took place, but the track of the drainage tube did not finally close until some months afterwards.

D.—**Operations on the Gall-Bladder.**—Cases 8, 21, 22, and 40.

The diagnosis of cases attended with jaundice is often a matter of difficulty. In Case 8, a stone in the common duct was regarded as the probable cause of the infective cholangitis, especially as the gall-bladder was not enlarged; but in Case 21, malignant disease was suspected because of the distension of the gall-bladder which existed. In neither case, however, could a diagnosis be definitely made, and an operation which was regarded as mainly exploratory was quite justifiable. In each case the operation terminated in cholecystostomy with the object of preventing the effects of **cholæmia**, from which the patients were clearly suffering. This was of temporary benefit in Case 8, but resulted in death from secondary hemorrhage in Case 21. This tendency of operation to cause death from hemorrhage in patients suffering from jaundice is well known, and Mayo Robson has suggested that an attempt should be made to prevent it by the administration of chloride of calcium for some days before operation. This was done in both these cases. It is not generally recognised that all cases of **enlarged gall-bladder** without jaundice, supposed to be due to cholelithiasis, should be subjected to operation whether there is pain or not. One of the dangers of delay (acute cholecystitis) is exemplified in Case 22, which would certainly have had a fatal termination without an operation which is better performed to prevent, rather than to cure, such mischief as gallstones are capable of producing (*vide infra*). Case 40 was an interesting one of **catarrhal cholecystitis** (hydrops), apparently due to kinking of the cystic duct from adhesions. Cholecystostomy resulted in complete cure. The case has been described fully elsewhere.[1]

Case 22.—**Acute cholecystitis—Cholecystostomy.**—A swelling had existed in the situation of the gall-bladder for about twenty years, but it remained stationary and gave no trouble till three weeks before the patient came under my observation, when it began to enlarge and become tender. The swelling increased, and a succession of rigors

[1] *Brit. M. J.*, 1900, i. 1329.

occurred, the temperature rising to 104° or 105°. There was marked general prostration; no jaundice was present. To the right of the umbilicus a distinct bulging of the abdominal wall could be seen, caused by a smooth globular tumour nearly the size of a cricket-ball, moving with respiration and feeling like a tense cyst. This swelling was movable laterally, but could not be displaced downwards because of an apparent connection with the liver. The liver was slightly enlarged, and a distinct sulcus could be felt between this organ and the swelling below it. A vertical incision over the globular swelling exposed a linguiform process (Riedel's lobe) of the liver, and beyond this was seen a distended gall-bladder the size of a goose's egg. Nine ounces of thin pus were removed by aspiration from the gall-bladder, which was then incised and twenty-eight gallstones removed. Of these, eight were as large as small hazel nuts, the rest much smaller. One stone was impacted in the cystic duct, and directly this was dislodged bile flowed into the gall-bladder. The opening in the gall-bladder was sutured to the aponeurosis in the ordinary way, and a drainage tube was kept in for a week. Two ounces of bile came daily through the wound at first; but the flow entirely ceased in the course of three weeks, and the fistula healed soon after. A culture made from the pus removed from the gall-bladder at the time of operation showed short motile bacilli, forming gas in glucose, agar, &c., which were probably bacilli coli communes. (Dr. Symes.)

The linguiform process of liver above referred to is generally found in association with cholelithiasis, but I have seen it in cases in which no gallstones were present. Probably any condition which causes adhesions between the gall-bladder and the liver may lead to elongation of a portion of the adherent liver in association with an enlargement of the gall-bladder. Of such causes, gallstones are, doubtless, the most common.

E.—**Operation for Tubercular Peritonitis.**—Case 18.

Cœliotomy holds out a very fair prospect of cure in the subacute and chronic forms of the "ascitic" variety, and in many cases of the "fibrous" and "ulcerous" varieties of tubercular peritonitis.

Acute miliary tuberculosis of the peritoneum is not suitable for operation. Such disease is liable to be confused with appendicitis, as in a case described in my former paper.[1] The resemblance to appendicitis was very marked also in the following case of subacute tubercular peritonitis; and I could not be sure, even after operation, that the lesion found had not actually spread from a tubercular inflammation of the appendix.

[1] *Bristol M.-Chir. J.*, 1898, xvi. 219.

CASE 18.—**Tubercular peritonitis—Cœliotomy.**—The illness began four weeks before operation, with marked pain in the right iliac fossa, especially before and during defæcation. The bowels were loose and had been streaked with blood. The temperature kept at about 101°. There was no tubercular family history. Just internal to the right anterior superior iliac spine an indurated area could be felt reaching inwards for some two and a half inches from the iliac spine and shading off along Poupart's ligament. This swelling was fixed and tender. On examination *per rectum*, some matting could be felt in the pelvis. An incision made near the right anterior iliac spine disclosed a large amount of tubercular granulation tissue in the ileo-cæcal region, matting the intestines in the neighbourhood together. Numerous mesenteric glands were found enlarged, and the intestines generally were covered with miliary tubercles. The granulation tissue was freely scraped away and the abdomen closed. The temperature was normal after the fourth day from the time of operation, and there was a gradual gain of flesh and strength. After a visit to Weston, during convalescence, the child continued quite well.

F.—**Operation for Peritoneal Adhesions.**—CASE 1.

Almost any inflammatory trouble within the abdomen may give rise to adhesions which may produce symptoms varying from slight dragging pain to intestinal obstruction. Considering the large number of abdominal sections which is now performed, it is remarkable to find how rarely we are called upon to operate for adhesions consequent upon a cœliotomy.

CASE 1.—**Peritoneal adhesions.**—The patient had been subjected four years previously to right salpingo-oöphorectomy—the right uterine appendages being found attached to the sigmoid flexure. Six weeks after this operation she complained of hypogastric pain (both sides), which had gradually increased in intensity. Cœliotomy disclosed numerous adhesions between the great omentum and the intestines, forming a series of loculi. The adhesions were liberated and the patient was entirely relieved of her pain.

G.—**Operations on the Intestines.**—CASES 2, 15, 19, 26, 33, 36, 38, 43, 46, and 48.

With two exceptions—cases 33 and 48—these operations were performed for malignant disease of the intestines.

The operations might be subdivided as follows:—

Sigmoidostomy and Colostomy.—CASES 2, 36, 38, and 46.

Colectomy.—CASES 19, 26, and 43.

Enterostomy.—CASES 33 and 48.

Ileo-colostomy ("**short-circuiting**").—CASE 15.

The continued multiplication of methods for uniting divided intestine bears witness to the unsatisfactory condition of this branch of abdominal surgery. Much of the want of success in these cases is due to circumstances which have already been dwelt upon in the opening remarks. In the performance of **intestinal resection,** I always prefer the use of simple suture to that of mechanical appliances, and of all intestinal sutures (and their number is large) I know none better or more generally applicable than Halsted's quilt suture. In early cases of **malignant disease** of the intestine, the ideal method of treatment is that of resection and simple suture of the divided ends; but in cases where the patient is already suffering from symptoms of obstruction it is best, whenever possible, to bring the growth to the surface, open the intestine above the growth to relieve the over-distended bowels of their contents, and subsequently to remove the growth and unite the two ends of the divided intestine. This is the method advocated by Greig Smith, and was practised with success in Case 19.

In malignant disease of the ascending (Case 43) and descending (Case 26) colon, it is frequently impossible to bring the growth to the surface, and here one often has to be content with union of the gut by some mechanical device after resection of the involved segment. For this reason a Mayo Robson's bobbin was used in Case 26, and a Murphy's button was used in Case 43, but both patients died from faults associated with these appliances—the bone bobbin was too soft and collapsed when the sutures were tied, so that leakage occurred, and the Murphy's button caused a pressure gangrene of the bowel beyond the limits of the button.

Sigmoidostomy and colostomy in irremovable malignant disease are best performed by passing a glass rod through the mesocolon after the bowel has been brought to the surface (Reclus's method). Such operations are, however, poor substitutes for the efficient help which surgery can often afford in an earlier stage of the disease. Truly the patient is saved from death from intestinal obstruction, but the comparatively short prolongation of life which the operation gives is hampered by the inconvenience of an inguinal anus.

Whenever possible, a **short circuit** should be made in preference to the formation of an artificial anus. The following is an example of this operation in a case of malignant disease of the ascending colon :—

CASE 15.—**Short circuiting (Ileo-colostomy).**—An incision over the right side of the abdomen, one and a half inches internal to the anterior superior iliac spine, showed the cæcum and ileum to be enormously distended and congested. The former was as large as a fœtal head at full term, and the longitudinal muscular bands stood out like large cords, half an inch wide. The ileum was about three and a half inches in diameter, and the vermiform appendix was the size of ordinary small intestine. In the ascending colon, about two and a half inches below the ileo-cæcal valve was a hard, irregular mass, about as large as a fist, which had apparently almost closed the lumen of the gut. The fixity of the growth, and the existence of numerous hard enlarged glands in the neighbourhood and secondary deposits in the anterior wall of the cæcum, rendered resection impossible. Short circuiting was therefore performed by uniting the ileum (about six inches from the ileo-cæcal valve) to the transverse colon (just beyond the hepatic flexure) by Halsted's method of suture. The opening between the two portions of gut was about one and a half inches long. The transverse colon was no larger in diameter than the thumb. The bowels acted daily after operation, until the patient's death occurred from gangrenous pneumonia.

H.—**Exploratory Operations.**—CASES 3, 6, 7, 23, 35 and 50.

Most of these operations were performed for **malignant disease** of the gastro-intestinal tract. The diagnosis was correctly made before operation in all the malignant cases, but cœliotomy was performed because it was impossible to be sure until the abdominal cavity was opened whether the growth was removable or not.

Not one of this group was injuriously affected by the operation, and the low mortality of exploratory operations of this kind fully justifies the procedure in cases of uncertain knowledge, either of the nature or extent of the disease. When this fact is more fully appreciated, we shall have a better opportunity of treating malignant disease of the abdominal viscera in an early stage.

CASE 7 was a **retroperitoneal lipoma** nearly as large as an adult's head, which simulated an ovarian cyst. There was, however, resonance over the pubes, which rarely obtains in cases of ovarian tumours. The attachments of the lipoma were so extensive that no attempt was made to remove it.

J.—**Operations for Appendicitis.**—Cases 4, 9, 14, 16, 17, 28, 30, 32, 42, 44 and 45.

In cases of **suppurative appendicitis**, the safest rule is to remove the appendix in those cases only where it is easily reached, and where it does not form a part of the adhesions which may help to shut off the abscess cavity from the general peritoneal cavity. In other words, it is removed in that class of appendicitis where the appendix floats freely in a cavity surrounded by matted coils of intestine which have to be separated in order to liberate the pus.

Appendicectomy was performed in Cases 9, 14, 16, 28, 30, 32, 42, and 45; but of these, Cases 16, 30, and 42 were **relapsing cases**, and the appendix was removed in an interval between the attacks, and Case 9 was removed for a **persistent sinus** communicating with the appendix in a case which had been previously treated by drainage only.

Secondary operations of this last class are by no means common, and it is probable that in most cases of suppurative appendicitis treated by drainage only, the appendix becomes atrophied,—it certainly gives rise to further trouble with comparative rarity.

In this series there were three deaths—Cases 4, 14, and 28. Of these, Case 4 was associated with diffuse peritonitis, and operation was practically only a forlorn hope; Case 14 was one of gangrenous appendicitis with diffuse peritonitis, and Case 28 developed cerebral thrombosis and died after a series of epileptiform convulsions.

Case 30 was interesting because the appendicitis was associated with a chain of enlarged calcareous glands which were removed from the meso-cæcum and meso-colon. It is rare for **gangrenous appendicitis** to give rise to other than the most acute symptoms, which generally end fatally from diffuse peritonitis, but in the following case a localised abscess formed and the peritonitis was strictly limited:—

Case 45.—**Gangrenous appendicitis.**—Ten days before operation the attack began with pain near the umbilicus (subsequently limited to the right iliac fossa), vomiting, and temperature of 102°. A swelling gradually formed in the right iliac fossa, which soon began to diminish in size, but it had nearly doubled in size during the preceding forty-

eight hours, and at the time of operation was nearly as large as the fist and occupied a position along the outer half of Poupart's ligament. An incision over the tumour and separation of a few adhesions disclosed a cavity containing about one and a half ounces of stinking pus. The appendix which was lying along the wall of the cavity was easily separated, and found to be entirely gangrenous, so that it broke away at its cæcal attachment. Recovery was uninterrupted.

I have practically discarded **irrigation of the peritoneal cavity,** and it was not employed in any of the above cases of appendicitis. Irrigation, by the conveyance of infected material to unaffected parts, is productive of much harm, and more cases of suppurative appendicitis will be saved by simply mopping out the affected area than by attempts to "cleanse" the peritoneum by means of a douche.

CASES OF ACUTE INTESTINAL OBSTRUCTION TREATED BY OPERATION.[1]

BY

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THERE are probably no cases which cause more anxiety to the surgeon than cases of acute intestinal obstruction. "A young man in robust health is seized with symptoms of strangulation in the early morning, and before the night has come an operation is advised, which is acknowledged to be attended with an enormous risk to life." "Operation in these cases is too often regarded as a last resource. It should be regarded as the *first* resource, as it certainly is the *only* resource." (TREVES.)[2]

It must always be the case that a large proportion of these operations will prove fatal. A certain number will prove successful; and as during the last twelve months I have been

[1] Paper read before the Bath and Bristol Branch of the British Medical Association, Jan. 31st, 1900.

[2] *Intestinal Obstruction*, 2nd Ed., 1899, pp. 476, 477.

fortunate enough to have two recoveries out of three operations, I have felt justified in bringing them forward to encourage others in operating upon similar cases with hope of similar success.

Case I.—Acute obstruction of the small intestine by an impacted gallstone. Operation. Recovery.

Mrs. V., aged 60, was quite well until midnight on Wednesday, May 17th, 1899, when she was seized, while in bed, with violent pains in the abdomen and vomiting. The pain was chiefly in the region of the umbilicus, but extended over the whole abdomen. The vomiting was frequent and severe. At first large quantities of green fluid were vomited, but the quantity gradually became less. The pain and vomiting continued for four days, during which time there was no action of the bowels, although copious water enemata were administered from time to time. There was some idea on the part of the patient that flatus was occasionally passed during this period, but there was some doubt about this. At first the case appeared to be one of hepatic colic, but it gradually developed into one of intestinal obstruction, the vomiting being slightly fæcal on the fourth day (Sunday).

The patient was under the constant observation of Dr. Barclay Baron, and was seen also by Dr. Markham Skerritt. I was asked to see her with a view to operation on Sunday night, May 21st, when the symptoms had lasted four days. I found the abdomen distended and tympanitic; no lump could be felt anywhere. Examination by the rectum revealed nothing. It was obviously a case of acute intestinal obstruction, and I thought the cause was probably an internal strangulation by band or volvulus. Having opened the abdomen by an incision in the median line, I found the small intestine extremely distended and very dark in colour. I drew out several feet of distended gut on to hot towels, and then, on passing my hand into the abdomen, I easily felt a hard mass blocking the intestine at one place. Above this the intestine was greatly distended, while below it was contracted and empty. As the lump was in the small intestine, I thought it could not be a fæcal mass; moreover, it felt too hard for this; so I then thought, as it afterwards proved, that it was a large gallstone. I made a longitudinal incision over the stone, and without much difficulty extracted it from the intestine. I then sutured the intestine with two rows of Lembert's sutures and returned it into the abdomen. I do not know the exact portion of the intestine which was obstructed, but it was high up in the canal and probably in the jejunum.

The after-progress of the case was uneventful. The vomiting ceased at once after the operation; the bowels acted after an enema the next day; nutrient injections were given for two days, and the patient was then allowed to take peptonised milk. She made a complete recovery.

With regard to the diagnosis of the cause of obstruction, there was nothing in the patient's history to indicate gallstones. She was never known to have passed any, and there was no previous history of attacks of colic or of jaundice. Everything pointed to a suddenly arising cause, such as a volvulus or some similar condition, and there was nothing to lead us to suspect the actual condition.

The stone when first removed was of an oval shape, measuring

1⅞ in. by 1¼ in. It weighed 160 grains when dry. It was of a very dark, almost black, colour on the exterior, and of a pale yellow on section. Owing to a rough exterior it could not readily be moved up or down through the intestinal walls, and I was afraid to use any force through the inflamed intestine in attempts to crush it for fear of injuring the already weakened intestinal coats.

A chemical examination of the stone showed: 1. A reaction for bile pigments when treated with nitric acid. 2. Pettenkofer's test showed biliary acids. 3. When dissolved in ether and evaporated it gave crystals of cholesterine. 4. Some magnesium phosphate was found in it. 5. No lime salts could be found. The mass, therefore, was a typical gallstone.

The occurrence of acute intestinal obstruction from an impacted gall-stone is not very uncommon, although I have never met with another case.

Osler *(Principles and Practice of Medicine)* describes forty-four cases of intestinal obstruction by foreign bodies, of which twenty-three were gallstones — eighteen were in women and five in men. In six-sevenths of the cases it occurred after the fiftieth year. The obstruction is usually in the ileo-cæcal region, but it may be in the duodenum. These large gallstones ulcerate through the gall-bladder, usually into the small intestine, occasionally into the colon. Courvoisier[1] has collected 131 cases in literature.

Leichtenstern (in Ziemssen's *Cyclopædia*)[2] says: "I agree with Habershon, Brinton, and others, in thinking that the diagnosis of obstruction by gall-stones is possible under favorable circumstances."

The appearance of symptoms of occlusion, immediately after a severe attack of colic, accompanied by jaundice, sometimes with an accurate history of previous attacks of hepatic colic, perhaps of the passage of gall-stones, or the rare occurrence that a small gall-stone is vomited during the attack, with attention to the age and sex, all aid in the diagnosis.

Leichtenstern[3] says: "The gall-stone may lodge at any point in the small intestine, most rarely in the middle of the ileum, more frequently in the duodenum and jejunum, most frequently . . . . in the lowest part of the ileum, one or two inches above the ileo-cæcal valve." Thirty-two cases

[1] Quoted by Osler, *Op. cit.*, p. 534.

[2] Vol. VII., 1877, 625. [3] *Ibid*, p. 574.

were females, nine males. It nearly always occurs late in life, after the age of 50, and most frequently after 60.

Treves, in his work on *Intestinal Obstruction*, gives a good account of this affection, and alludes to a table of 139 cases collected by Schüller.

Maylard, in his work on *The Surgery of the Alimentary Canal*, has tabulated ten successful cases of operation for this affection.

I next wish to describe briefly two cases of operation for acute intestinal obstruction by "a band."

Case of acute intestinal obstruction by band. Operation. Death.

The patient was a lady, aged 55 years, whom I was asked to see one day last year by Dr. Walker Dunbar. Her symptoms commenced very suddenly, with great pain, coming on after a stool (the result of a dose of cascara sagrada). The pain was all over the abdomen, but worse in the region of the umbilicus. There was no vomiting the first day, and scarcely any the second day; but on the third day vomiting became frequent, and on this day I opened the abdomen. Having drawn out some coils of distended small intestine, I came upon a band of firm lymph, stretching across the abdomen and tightly constricting the gut. The band was ligatured and divided, and the operation was rapidly completed, so that it lasted less than a quarter of an hour. Within two hours of the operation there was a copious evacuation of the bowels, but this instead of relieving the patient seemed rather to increase the collapse. She never really rallied, being naturally feeble, and died about twelve hours after the operation.

The case was a great disappointment to me, as it seemed so satisfactory in every way. I attributed the failure to two causes: one being the usual one, that I operated too late, and the other being that the paralysed and distended gut above the obstruction ought to have been emptied at the time of operation to allow it to recover itself afterwards, and this I determined to effect in a subsequent case when I had the opportunity.

Case of acute intestinal obstruction by band. Operation. Recovery.

W. H., a man, aged 50, was admitted into the Bristol Royal Infirmary on December 10th, 1899, complaining of pains in the abdomen and vomiting.

There was no history of any previous disease or illness except syphilis, for which he had been treated for some time. He might be

described as of regular habits, for he assured me that he never got drunk except on Saturday nights, but that he always got fuddled with beer on that night, and in that condition went to bed on the night of Saturday, December 9th, 1899. He awoke about 3 a.m. on the morning of December 10th, with acute pain in the abdomen. He vomited several times, and the pain grew rapidly worse.

He came to the Royal Infirmary during the day and was admitted as an in-patient. The usual symptoms of acute intestinal obstruction continued until the 13th, when his condition was obviously becoming grave. The abdomen was fully distended and tympanitic in front, while in the flanks it was dull, giving rise to the diagnosis that the obstruction might be due to suppurative peritonitis, perhaps from appendicitis. There had been no passage of fæces or flatus since the commencement of the illness. I operated on December 13th, opening the abdomen by an incision in the median line. The first thing noticed on opening the peritoneum was a considerable quantity of dark fluid blood or blood-coloured serum in the peritoneal cavity, which had obviously caused the dulness in the flanks. After the fluid had escaped, the hand passed into the abdomen readily discovered a tight band connected with the lower border of the great omentum tightly strangulating the small intestine. This was ligatured and divided, and the injured portion of the intestine was brought outside and thoroughly examined. Although it had been very tightly constricted, yet I thought it would recover. The intestine above the constriction was of such a deep colour, and was so enormously distended with gas and fluid, that I determined to incise it and let out as much of the contents as I could, in order to save the patient from the toxic effects of fæcal poisoning so commonly the cause of death in these cases. I made a small incision about half an inch long in the transverse diameter of the gut, and let out about a pint of brown liquid fæces as well as a large quantity of gas. I then sutured the incision with a double row of Lembert's sutures, and restored the gut to the abdomen. The abdominal wound was closed without drainage and the operation rapidly completed.

The after-progress of the case was all that I could wish. The patient was fed entirely by the rectum for the first two days. The bowels acted for the first time on the 15th, two days after operation; he was then allowed food by the mouth, and on Christmas day, twelve days after the operation, he ate a Christmas dinner of roast beef, and sang a song after dinner. He was sent to the Convalescent Home on January 10th, four weeks after the operation.

I attribute his recovery largely to the fact that I emptied the bowel of its contents at the time of operation. Mr. Treves speaks highly of this plan, and says he considers that this addition to the operation has reduced the mortality by 50 per cent. Mr. Greig Smith always maintained that this was an important procedure, and strongly recommended its adoption. I shall not hesitate in future to make use of it in all similar cases.

ABDOMINAL HYSTERECTOMY FOR FIBROIDS OF THE UTERUS, WITH RETRO-PERITONEAL TREATMENT OF THE STUMP, AND NOTES OF TWO CASES.[1]

BY

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THE treatment of uterine fibroids has given rise to considerable divergence of opinion; on the one side we find those who declare that they are innocuous and should be left alone, and on the other those who are of opinion that they should be removed whenever found to be present. Both views are erroneous, but between these two extremes there is a possibility of arriving at a correct conclusion as to the general grounds on which treatment should be based. To take the first contention, that fibroids are innocuous. A short time since a well-known authority asked whether anyone could honestly say that death had ever been caused by a fibroid tumour of the uterus, and added that he could not remember such a case. In a necessarily more limited experience, I am able to state that I know of cases in which death has occurred from conditions brought about by fibroid tumours: in one death occurred from intestinal obstruction; in another from hemorrhage; in another from rupture of the uterus in parturition; and in two cases from malignant disease occurring either as malignant degeneration of a fibroid, or as malignant disease of the uterus already affected with a fibroid tumour. To take the other view. Every obstetrician of any experience has had under his care numerous cases where even large tumours failed to produce any symptoms of importance beyond those due simply to the bulk of the

[1] Read before the Bristol Medico-Chirurgical Society, April 11th, 1900.

tumour; I myself have now under my care several such cases.

We may therefore adopt an opinion midway between the extremes before mentioned, and state that though fibroid tumours of the uterus are often innocuous, conditions may be present which call for operative interference, and these may be briefly stated as follows:—operative interference should be advised (1) if severe hemorrhage is present; (2) if pressure symptoms are present; (3) if in pregnancy the situation of the tumour is such that obstructed labour will result; (4) if severe pain and physical disability arise in working women to such an extent as to incapacitate them; (5) if after the menopause hemorrhage recurs; (6) if the tumour commences to increase with great rapidity, especially after the menopause; (7) if symptoms of twisting of the pedicle, when one is present, should show themselves. The two last are especially unfavourable symptoms.

The operative procedures for the relief of the patient are many; and here again we cannot commit ourselves to any one method without the danger of occasionally omitting to meet the best interests of the patient.

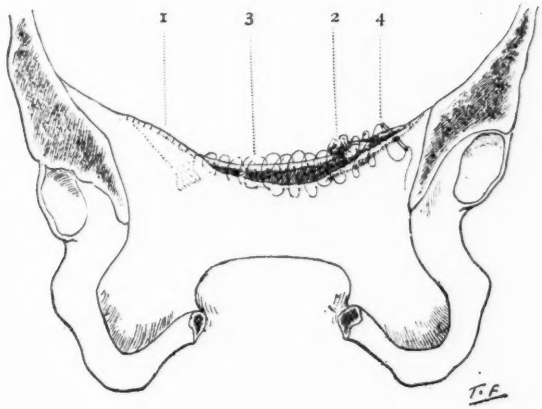
The tumour or tumours may be dealt with by (1) myomectomy, either *per vaginam* or *abdomen;* (2) enucleation through the cervix and vagina; (3) removal of the uterus *per vaginam;* (4) removal of the uterus *per abdomen;* (5) partial removal of the uterus *per abdomen,* with retro-peritoneal treatment of the stump, (6) with extra-peritoneal treatment of the stump; or (7) indirectly by oöphorectomy.

Myomectomy is in a suitable case, *i.e.*, a well-defined pedunculated or sessile tumour, a sound proceeding; it is truly conservative, and, in many cases, has enabled the patient to pass successfully through pregnancy and parturition. It is, however, not devoid of risk, and is quite unsuited for large growths, or those in which uniform enlargement of the corpus uteri is present.

Enucleation after dilating the cervix is most dangerous and should not be attempted in nulliparæ with narrow vagina, pedunculated tumours excepted.

Removal of the uterus *per vaginam* is fairly satisfactory when the tumour is not large and the vagina capacious, it may be performed by morcellation, or in the same way as for malignant disease, but if adhesions be present may be very difficult and risky. Complete removal *per abdomen* (panhysterectomy) is not difficult, and if injury to the ureters can be avoided is fairly safe, especially if the combined method is used.

Partial removal, with retro-peritoneal treatment of the stump, is a satisfactory operation, but has a higher mortality at present than the extra-peritoneal method of treatment of the stump; this, however, we may expect to be corrected as the operation becomes more general. Convalescence in either complete removal, or partial removal with retro-peritoneal treatment of the stump, is rapid, and complications are less likely to occur than when the stump is treated by the extra-peritoneal method.



TO ILLUSTRATE THE INVAGINATION OF THE OVARIAN STUMPS IN PERITONEUM (Diagrammatic).

(1) *Right stump invaginated.*
(2) *Left stump about to be invaginated on tightening the sutures.*
(3) *Inverted edge of peritoneal flap, and*
(4) *Inversion of edge carried along anterior and posterior surface of broad ligament beyond incised portion.*

Oöphorectomy is often unsuccessful, and symptoms due to the sudden induction of the menopause are usually marked.

The two cases reported below were treated by partial hysterectomy, with retro-peritoneal treatment of the stump, and in both the same technique was applied. Special points in the technique followed are: first, the formation of long peritoneal flaps, so as to ensure the covering of all raw surfaces, and the inclusion of the stumps of the ovarian vessels in peritoneum by raising folds from the anterior and posterior surfaces of the broad ligament; secondly, the ligature of the uterine arteries in continuity without involving peritoneum in the ligatures; thirdly, wedge-shaped amputation through the cervix and the closure of the **V**-shaped flaps by deep continuous catgut sutures; fourthly, the burying of the ovarian stumps within the sutured peritoneal flaps; and the closure of the abdominal wound without drainage, which, if considered necessary, should be made by incising the vaginal vault outside the peritoneum and the use of a gauze drain into the vagina.

The first patient was a multipara, aged 53; she first noticed the tumour twelve months before operation. Just about the time when her periods ceased, six months later, she had an attack of hemorrhage which recurred in increasing quantity until a month before the operation, when she bled so violently that her life was in danger. The tumour then rose to just above the umbilicus, and had increased rather rapidly. Her abdomen was opened by long incision in the middle line, and the tumour felt to be free from adhesions. She was then placed in the Trendelenburg posture, the tumour brought out of the wound, the ovarian vessels and the round ligaments ligatured, and the broad ligaments cut inside the ovaries. A finger was then passed between the layers of the broad ligament across the front of the uterus, the peritoneum incised with scissors and the bladder separated; this was repeated on the posterior wall, and the peritoneum stripped up until the line of the uterine vessels was reached, when they were ligatured in continuity and divided: the tumour and body of the uterus were then removed, and the stump trimmed to a **V**-shape; the cervical canal was touched with the Paquelin cautery, and the stump closed by deep continuous catgut sutures buried in their whole extent except at the edges of the stump. The peritoneal flaps were then united with fine silk, the abdominal incision closed with silkworm-gut sutures passing through the whole thickness of the wall (after first dealing with a ventral hernia). Before finally closing the wound, the abdominal cavity was irrigated with sterile salt solution, of which about a pint was allowed to remain in the cavity. The patient's convalescence was uneventful; the bowels moved after forty hours; the stitches removed on the eleventh day; and she got up on the eighteenth day, returning home on the twenty-eighth day after operation.

In the second case the uterine tumour was much smaller, being

about the size of the fœtal head, with uniform enlargement of the corpus uteri. The same procedure was followed as in the first. It was noticed that every incision was followed by copious hemorrhage, even small vessels in the abdominal wall, hemorrhage from which is usually stopped by pressure, requiring ligature. The patient progressed favourably at first; but at the end of thirty-six hours her pulse began to rise, and she was obviously suffering from hemorrhage. With the assistance of Dr. R. G. P. Lansdown, I re-opened the abdomen and found the pelvis full of blood. The sutures uniting the peritoneal flaps were cut, but no bleeding point could be found, the blood flowing in a general ooze from the uterine surfaces of the peritoneal flaps. Every contact between the stump or flap and a sponge was followed by fresh oozing, and seeing that all the large vessels were secure, the uterine and ovarian stumps being quite dry, I packed the pelvis with iodoform gauze, united the wound after irrigation of the abdomen with sterile saline solution, and put the patient back to bed. The bowels moved freely next day, and flatus was passed naturally, as also at intervals on the following day. When the packing was removed on the third day, the bowels moved again and flatus was passed, but the patient vomited a few times during the day. The next day the patient vomited frequently, but no abdominal distension was present and flatus was passed. The next day sudden collapse and distension occurred, which was relieved by washing out the stomach, but no improvement in the general condition followed. The patient died the following day, the sixth after the operation. On removing the dressings to re-open the wound to check the hemorrhage, I noticed that every suture hole was surrounded by a large ecchymosis, and on cross-questioning the patient found that she was undoubtedly hæmophilic, hence the bleeding. *Post-mortem*, it was found that two coils of small intestine had become interlocked and adherent close to the gauze packing; there was no peritonitis, and but little plastic exudation, except just about the packing and where the two coils had become adherent. The symptoms of obstruction were not definite until the patient's condition was too grave for operative interference.

In the second case, no doubt extra-peritoneal treatment of the stump would have been preferable had the patient's tendency to hemorrhage been known beforehand; as it was, there was no indication that retro-peritoneal treatment was contra-indicated. Panhysterectomy, as an alternative, would probably have been safer, as all the bleeding points could have been ligatured at the time of operation and bleeding from the collateral vaginal circulation thus avoided.

In both cases the indications for operation were clear, the hemorrhage in the first case being severe, and the pain and malaise in the second making the patient a burden to her friends and her life a misery to herself.

TWO CASES OF THE SPORADIC FORM OF EPIDEMIC CEREBRO-SPINAL MENINGITIS.

BY

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THE following two cases of cerebro-spinal fever are the only ones that have occurred at the Bristol General Hospital within the last twelve years, and probably for a much longer period, but of that I have no certain knowledge. It is certainly worthy of remark that both cases were admitted within four weeks. I also learnt that the sister of the first patient was at home ill with high fever and delirium; but as I failed to ascertain the exact nature and result of her illness, I cannot say whether she also suffered from the same disease. According to Jaeger,[1] there is now an epidemic period of the disease in Europe and America. Cerebro-spinal fever is fortunately rare in the epidemic form in this country, the last minor outbreak having taken place in the Eastern Counties in 1890. Sporadic cases, however, occur from time to time. In the United States, where epidemics have been of frequent occurrence and sometimes of great severity, sporadic cases constantly occur in the intermediate years. An interesting point is the relation of the sporadic cases to the epidemic form. In the recent severe epidemic in Boston, U.S.A., 1896–7, the mortality was 68.5 per cent., and in thirty-nine sporadic cases occurring between 1880 and 1896 it was 59 per cent. The symptoms of the disease and the pathological changes are the same in both. The epidemic form of the disease is now generally admitted to be due to the diplococcus intracellularis meningitidis (Weichselbaum); Netter, however, maintains that it may be caused

[1] *Deutsche med. Wchnschr.*, 1899, xxv.

either by this organism or by the pneumococcus.[1] With regard to the sporadic cases, the question seems to be not finally settled, but many observers have also found in these the D. intracellularis meningitidis.

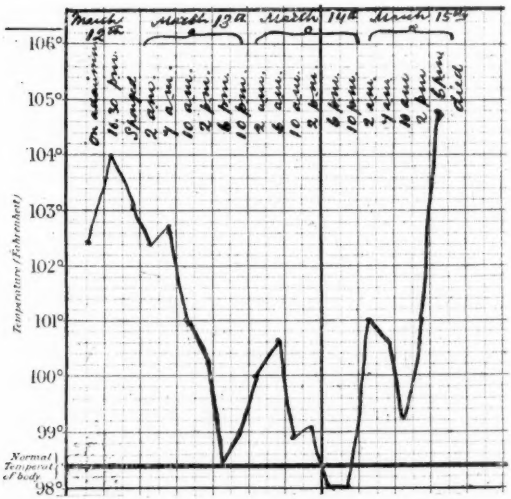
Dr. D. S. Davies kindly undertook the examination of the exudate in the two cases described below. He found in each one a diplococcus corresponding in morphological characters to the D. intracellularis meningitidis, and in the second the pneumococcus was also present. This last is not an infrequent association. Netter found these organisms present together in ten out of thirty-nine cases. I regret that my case was not examined for the presence or absence of Kernig's symptom; but before reading Prof. Osler's Cavendish Lecture in July, 1899, I was not acquainted with this symptom. The account of the cases is as follows:—

CASE 1.—Frederick G. S., aged 10, had always been healthy until October 11th, when he was run over, the right side of the jaw and the right collar-bone being fractured. He was brought to the Bristol General Hospital, and remained there until December 11th. On his discharge he was deaf in the right ear, and had a squint, which subsequently disappeared. He was also very irritable. He appeared to have recovered his health until on March 7th he lost his appetite, and on the 9th complained of feeling ill. On the 10th he vomited whilst eating his dinner; the vomiting recurred at frequent intervals during that evening and night. At midday on the 11th he suddenly became feverish and delirious, shouting loudly, and his mother said that his mouth and eyes were alternately turned to the right and left, and the squint returned. At the same time he threw his arms and legs about, throwing his arms over his head and twisting himself from right to left. He passed no urine all this day until the evening, when he passed it in bed. The bowels were constipated. He constantly asked for water; his speech was muffled and unintelligible. At midnight there was a remission of the symptoms until the evening of the 12th, when they returned, and he was admitted on the 13th. Previous to admission, there were no rigors, fits, or paralysis. On examination, he was drowsy, the face flushed, and the corners of the mouth retracted. He was restless and delirious. Pulse, 140, soft; respiration, 24. Tongue covered with a thick yellow fur. Sordes on the teeth and lips. He was badly nourished: the skin was hot and dry. The thoracic and abdominal organs appeared healthy. The abdomen was not retracted; there was no tâche cerebrale. The head was slightly retracted, the muscles at the back of the neck being somewhat rigid. The pupils were not dilated, but the right was larger than the left. The patient lay on his right side, with hips and knees flexed. He strongly objected to being examined, and resisted being disturbed. There was marked photophobia, the eyelids being kept firmly closed: there was right external strabismus. The head and spine were gener-

[1] *See* Osler, Cavendish Lecture, *Brit. M. J.*, 1899, i. 1517.

ally tender to light percussion. On the 14th the patient was delirious and very noisy, constantly shouting out. He lay on his back, with the head very slightly retracted and turned to the right. The pupils were contracted and acted to light. There was some ptosis on the right side. Rigidity of the right shoulder and elbow-joints was observed. The knee-jerks could not be obtained; the superficial reflexes were present. He had not vomited since admission. Examination of the ears showed that they were normal. March 15th.—The patient became quieter during last night, and passed gradually into coma. Herpes labialis had appeared at the left angle of the mouth. His face was pale. The right arm was rigid, the other limbs flaccid. He still lay on his back, with his head turned to the right and partly backwards. The pulse was feeble, 144; the respirations irregular, varying in rate

CASE 1.



from 12—16 up to 30—40 in the minute; they were not rhythmical. He lay quiet, but resisted when disturbed, especially if his head was moved. The knee-jerks were absent, the plantar and abdominal reflexes present. The pupils were dilated; there was right ptosis and right external strabismus: no view could be got of the right optic disc, the left was a little reddened, and the veins engorged; its edge was fairly clear. There was decided paresis of the left arm, left leg, and left side of face. During the last two days the bowels had remained obstinately constipated. From the time of admission the urine was passed unconsciously into the bed. He died comatose the same night.

The *post-mortem* examination was made eighteen hours after death. With the exception of labial herpes, there was no eruption on the skin. There were some patches of collapse in the upper lobe of the right lung;

the heart cavities were full of pale firm clot. The viscera were otherwise normal. The skull was normal. There was no disease of the middle or internal ears or mastoids. The dura matter was healthy; the longitudinal sinus and the sinuses at the base were full of firm white clot, not adherent to the walls of the vessels. On removing the dura, a bright greenish-yellow exudation covered the whole surface of the cerebrum and cerebellum; it was most abundant over the vertex and over the superior surface of the cerebellum, but extended also over the whole of the base. On section, the substance of the brain was softer than normal, and the grey matter dark in colour. The ventricles were moderately dilated, and contained clear fluid; the lining membrane of the ventricles was soft, like the brain substance. The spinal dura mater was normal, and on removing it the upper part of the cord appeared healthy; but over the lower dorsal and lumbar regions there was a bright yellow exudation. The cranial nerves appeared healthy.

Cultures obtained from the exudation showed the presence of an oval encapsulated diplococcus, which did not stain by Gram's method. It corresponded in morphological characters and staining reactions to the diplococcus meningitidis of Weichselbaum. There were also a few large bacilli of uncertain nature.

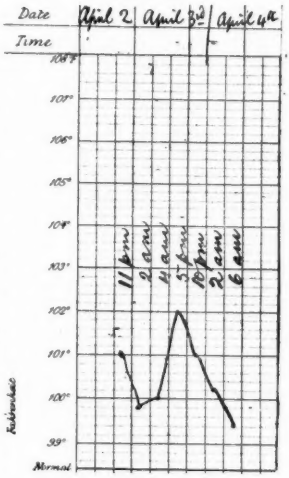
Unfortunately the notes of the next case are brief, as the patient was admitted late at night, and died thirty-four hours afterwards. He was admitted under Dr. Harrison, who has kindly allowed me to publish the case.

Case 2.—A clerk, aged 19, who had always enjoyed good health, and came of a healthy family. He was brought into the Hospital at 11 p.m. on April 2nd, with a history of having fallen down in a kind of fit. He had not complained of being out of health previously, and had not been noticed to be ill. On admission he was semi-comatose; he could be roused with some considerable difficulty, by dint of loud shouting to him, but then could not say more than "Ah!" He lay in bed with his legs drawn up, and was very restless, throwing his arms about, and constantly turning from side to side, but lying more on the right side than the left. There was some rigidity of the legs, and he strongly resisted any attempt to straighten them. On account of the violence of his movements, no thorough examination could be made. The head was retracted on the neck, and this retraction gradually increased until his death. The pupils were dilated—there was no squint. There was photophobia. The optic discs could not be examined. There was no discharge from the ears, and, so far as could be seen, no otitis media. The face was symmetrical, and there was an abundant eruption of herpes labialis. There was no paralysis of the limbs. The knee-jerks were not obtained. The urine was passed into the bed. He vomited once a few hours after admission, and was at first unable to swallow, but afterwards took a little milk. On examination, the lungs were normal in front; the heart's apex was in the normal situation, and a systolic murmur was audible at the apex. The abdominal organs were normal. On April 3rd his condition was much the same, but he was much weaker; the pulse was 84, soft; the respirations irregular, 42 to the minute. He was still semi-comatose, and tossing about from side to side. He did not cry out. The retraction of the head had increased. So far as could be made out, there

was tenderness to percussion over the head and over the spinal column. The coma gradually deepened during the night, and he died early on the following morning. Some hours before death some purpuric spots appeared on the legs and lower parts of the thighs.

The *post-mortem* examination was made twenty-nine hours after death. The body was well nourished, and rigor mortis was present. The bronchi contained frothy mucus. The lower lobes of the lungs were congested and œdematous, but the lungs were everywhere crepitant. The heart was normal, the liver congested; the spleen was large, dark, and firm, and the Malpighian bodies were prominent. The other abdominal viscera were healthy. The cranium was normal; there was no middle-ear or mastoid disease. The dura mater was healthy. On the pia mater there was a bright yellow purulent exudation, forming a thin layer which completely covered the vertex and convexity of both hemispheres and the cerebellum; it formed a thick layer on the under surface of the cerebellum, but elsewhere over the base the exudation was scanty or absent. The vessels of the pia-mater and of the grey matter of the hemispheres were deeply injected. The cerebral hemispheres appeared to be bulged and the ventricles were filled with clear fluid. The cranial nerves appeared healthy. The spinal dura-mater was healthy. A scanty yellowish purulent exudation similar to that over the brain was found on the pia-mater of the cord, most abundant in the lower dorsal region and on its posterior aspect. The cord itself looked normal, and was not softened. Cultures made on agar-agar from the exudation in this case showed the presence of the pneumococcus, and also of a diplococcus not staining by Gram's method, and corresponding in morphological characters to the diplococcus intracellularis meningitidis. Attempts to grow the latter on ascitic serum failed.

CASE 2.



Microscopic examination was made of sections stained in logwood and eosin, thionin, and methylene blue; for the two latter stains the tissues were hardened in alcohol. The chief changes were found in the brain in the meninges, in which there was marked injection of blood-vessels, and the pia-arachnoid appeared swollen with purulent infiltration. The leucocytes infiltrated the vessel walls, and were especially abundant around them. The largest masses of collections of leucocytes were in the sulci. In the brain itself the superficial vessels of the cortex were greatly distended, with dilatation of the lymph-spaces, which contained leucocytes. The superficial layers of the cortex appeared œdematous; no hemorrhages were found. The nerve-cells of the cortex, for some reason, were not very successfully stained. In the spinal cord, the soft membranes presented the same appearance as those of the brain, but here the greatest mass of leucocytes (purulent foci) was on the posterior surface around the

posterior roots, and also on the anterior surface, extending deeply into the anterior fissure. The superficial vessels which supply the circumference of the cord were injected, and this layer of the cord itself stained badly and was perhaps œdematous. Elsewhere the cord was normal, and the cells in all parts of the grey matter stained well and showed a normal structure. Some of the vessels in the meninges contained thrombi. In both brain and cord the relatively large number of leucocytes in the vessels cut in cross-section was very noticeable, and was evidence of a marked leucocytosis. The leucocytes of the exudation on the meninges consisted exclusively of those with a tripartite nucleus (finely granular oxyphil cells), and in many places diplococci could be seen to be included in them.

Pathologically the presence of the diplococcus intracellularis meningitidis in these sporadic cases of the disease is the most interesting feature: in a recent paper Dr. W. J. Buchanan says that it was found in three cases in the Bhagalpur Gaol, India[1]. From the clinical point of view, a marked feature in both cases was the extreme and constant restlessness. I did not see the second case during life, but the sudden onset and rapid course would class it under the fulminating variety of the disease: we had to depend, of course, upon the statements of his friends for the history, but, in any case, it may safely be concluded that there were no symptoms of serious illness until the fit which ushered in the rapidly-fatal attack. The petechial rash on the lower limbs and the labial herpes correspond to two of the skin eruptions most frequently seen in cerebro-spinal fever. In the first patient the sudden onset with high fever, acute delirium, pains in the back and limbs, herpes labialis, slight retraction of head, tenderness over head and spine, photophobia, partial right ptosis, and right external strabismus in the absence of pneumonia and of middle-ear disease, practically the two most frequent causes of a secondary meningitis, made the diagnosis of a sporadic case of cerebro-spinal fever sufficiently clear. For this reason, and also because of the extreme restlessness of the patient, a lumbar puncture was not attempted.

[1] *Indian M. Gaz.* 1899, xxxiv. 436.

SWEDISH MEDICAL GYMNASTICS IN CHRONIC DISEASES OF THE HEART.

BY

E. CHRISTOFFERSON

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EVER since the introduction of Swedish Medical Gymnastics by Per Henrik Ling at the beginning of the 19th century, this method of treatment has been applied with great success in certain diseases of the heart. Thus in many forms of chronic heart affections the circulation is necessarily weakened, and the object of medical gymnastics will therefore be *to facilitate the work of the heart* by improving the weakened circulation, and further *to strengthen the heart itself* by active exercises in cases where the use of such exercises is indicated.

In our medical gymnastics we have three groups of passive exercises, which all have a great effect in furthering the circulation; viz., kneadings, rollings, and respiratory movements.

Muscle-kneading is a kind of massage, although for the sake of convenience called a passive exercise. It has the effect of squeezing out the blood, so to speak, from the muscles and the intramuscular veins in the direction towards the heart. It acts in this way, as von Mosengeil aptly expresses it, simultaneously as a pressure- and a suction-pump. It increases the lumen of the peripheral vessels, and thus relieves the heart from part of its load. *Abdominal-kneading* is given, even in the absence of disorders of the digestion, on account of its circulatory-furthering effects, especially in some valvular lesions with venous congestion in the digestive organs. The circulatory-furthering effect of the abdominal-kneading is increased by the fact that it causes a mechanical excitation of the splanchnic nerves, and through these a contraction of the mesenteric arteries as well as of the venæ portæ and the vena cava inferior.

The second group are the *rollings*, in the ankle, hip, shoulder, and wrist joints. It is rather difficult to give a short and

intelligible description of these movements. They consist of the combined movements of extension, abduction, flexion, and adduction in the respective joints so as to produce a rolling, performed by the operator, while the patient is quite passive, in sitting or recumbent position. The effect of the successive flexion and extension will be a lengthening and shortening of the veins near the joints, and thus a suction of blood from the nearest peripheral parts. These movements are especially effective in the shoulder and hip joints on account of the big veins here and the fasciæ, which are attached to them and help to make them taut. The effect of this kind of movement is apparent by the warmth experienced in the feet after a foot-rolling. Trunk-rolling is almost always used in the treatment of heart diseases.

Of perhaps still more importance than the exercises of the two previous groups, which mainly influence the peripheral circulation, are the *respiratory movements*. They are passive exercises for making the respiration deeper. As is well known, the consequence of a deeper inspiration is a stronger suction of blood to the right heart and also an increased pulmonary circulation. As an incomplete oxidation of the blood follows a weakened circulation, it is clear that also from this point breathing exercises are of importance in heart diseases.

Besides the above-mentioned exercises for improving the circulation we have another group of passive exercises, which have a soothing effect on the action of the heart. Of these is especially to be mentioned the so-called "local heart-treatment." This consists of light strokings over the heart and in a light "tremble-shaking," performed with one of the operator's hands placed over the heart of the patient. The explanation of the influence of these manipulations may be a reflex action on the vagus nerve, although the possibility of a psychical influence cannot be excluded. According to researches made by Dr. Levin, of Stockholm, in 6000 observations during a period of ten years, this local heart-treatment has the power of diminishing the pulse rate by 8—12 beats a minute. The above-mentioned abdominal-kneading has the same effect, in a somewhat lesser degree.

The effect of the passive exercises will thus be a more normal distribution of the blood mass. The venous congestion is diminished by the increased flow of blood to the right heart and by the fact that the heart can more easily pump away the blood. The blood is drawn more to the peripheral parts and the arterial circulation is increased by the diminished peripheral resistance. The overburdened heart, relieved from part of its load, is able to contract more fully and slowly, and will gain strength from this and from an improved coronary circulation.

The passive exercises all tend to improve the circulation and relieve the heart. But our aim will also be, in certain cases, to strengthen the heart-muscle by *gradually increasing its work*. This is done by *active exercises*. These exercises are practically the same as those used in the "Nauheim treatment," with the exception however of those in which the arms are carried above the level of the shoulders. The exercises are performed by the patient, as a rule either in a sitting or recumbent position, slowly and under full breathing, while the operator makes a moderate resistance. As a rule we begin with exercises for the legs, as these are found to be better tolerated by the patients than the arm exercises, probably because the latter tend to make the respiration more difficult. This fact, too, agrees well with the principles and good effects of the "Oertel terrain-cure," in which active exercises for the lower extremities only are used.

The influence of the active exercises is, to a certain extent, the same as that of the passive; they unload the heart by drawing the blood to the working muscles. Thus the heart can more easily do the increased work demanded of it, contracts more slowly and completely, and grows gradually stronger at the same time as the other working muscles.

But however slowly and cautiously the active exercises may be done, they always increase the work of the heart, and are not given therefore in more severe cases with failing compensation. It will here only be a matter of helping the circulation and relieving the heart without increasing its work. If the symptoms of failing compensation have thus been relieved, we may gradually add active exercises.

It is evident that the time given to the treatment, as well as the strength and number of active exercises, differ according to the case treated and the condition of the patient. As space does not allow me to go into details in the treatment of different kinds of heart diseases, it may briefly be said that passive exercises are given in all forms of heart disease treated by gymnastics, that is in cases of valvular affections, cardiosclerosis and chronic myocarditis, fatty infiltration, idiopathic hypertrophy and dilatation of the heart ("weakened heart"). Also in some heart neuroses (nervous palpitation, morbus Basedowi and others) the gymnastic treatment has shown itself valuable.[1]

The active exercises are especially used in cases of fatty infiltration, some heart neuroses, and in valvular lesions with fairly good compensation. They *may* in other cases, according to what has been said above, subsequently be added to the passive exercises. As a rule they are not given in cases associated with aneurysma aortæ or advanced arterio-sclerosis. The exercises given in the following case may serve as an example of a "gymnastic prescription":—

F. F. C., railway engineer, was referred to me by Dr. Watson Williams, complaining of palpitation, a sense of oppression in the chest and an irritable cough with slight mucous expectoration. The first cardiac sound at the apex was prolonged and there was a marked epigastric pulsation with an indefinite bruit over the tricuspid area. The symptoms dated from excessive muscular exertion, and were partly attributable to excessive smoking, but he had been very much overworked and had had a great deal of worry in connection with his occupation. Under his physician's supervision I gave him the following treatment:—

1. Sitting chest-lifting (a passive respiratory exercise).
2. Foot-rolling, with active foot flexion and extension.
3. Leg-muscle-kneading.
4. Leg-rolling (in the hip joint), with active flexion and extension in the hip and knee joints respectively.
5. Arm-muscle-kneading, rolling in the shoulder joints and active flexion and extension of the forearm.
6. Kneading of the back muscles, back hacking and nerve friction (as a stimulant).
7. Trunk-rolling.
8. Abdominal kneading.
9. Local heart-treatment.
10. Sitting chest-lifting.

[1] Wide, *Handbook of Medical Gymnastics.*

After every second or third exercises three or four chest-liftings and a few minutes' rest were given. The treatment was continued for an hour daily for four weeks. The result was, according to Dr. Watson Williams, that "the heart became much quieter, the heart's action became normal and the general health was immensely improved."

Dr. Wide, the Head Physician of the Gymnastic Orthopedic Institute, Stockholm, in his *Handbook of Medical Gymnastics*, says:—

"Even if medical gymnastic treatment can in no case free the patient from the heart disease itself and only in few cases improve it, still I dare assert, on account of the experience I have gained during the course of years, that every patient with heart disease will obtain relief from the troublesome symptoms of palpitation, shortness of breath, pain and oppression over the heart, with other symptoms that always accompany heart disease—and even this is much to be thankful for.

"It is true that the improvement will not be lasting in every case, but that the treatment must be often repeated and for long periods; but it should also be remembered that the disease is chronic, and that no other treatment gives better result. I know several heart patients who year by year continue to take medical gymnastics and just on this account are able to keep up and continue to be hard-working people, when otherwise they would be condemned to an inactive life, often, perhaps, to a constant sick-bed.

"Finally, it should perhaps be pointed out, that medical gymnastics, as well when it is a question of treating heart disease as any other illness, does not exclude a simultaneous use of medicinal treatment, and that it is often necessary to employ both in order that the patient may obtain the greatest possible benefit."

NOTE ON A PRE-EXANTHEMATOUS SIGN OF MEASLES.

BY

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THE pre-eruptive sign of measles described by Koplik, of New York, in 1896 as invariably present at some time in all cases of measles, and as absolutely pathognomonic of the affection, is worthy of closer attention than has been accorded to it in this country. The complete early isolation of patients developing measles is most desirable, inasmuch as the affection is highly contagious in the pre-eruptive stage, yet often the character of the symptoms that precede the appearance of the exanthem are so indefinite as to arouse no suspicion of commencing measles.

If the claims of Koplik that these spots are characteristic of measles are well founded, we have at hand a ready means of making a diagnosis before the appearance of the measles rash.

Moreover, there are various skin affections which closely simulate the rash of measles; and here again the sign now known as "Koplik's spots" may afford valuable data in making a differential diagnosis. The spots are very minute, round, discrete, bluish-white specks on a reddish punctate area or diffuse red background.

Koplik [1] states that "if we look in the mouth at this period [the time of the prodromal symptoms] we see a redness of the fauces; perhaps, not in all cases, a few spots on the soft palate. On the buccal mucous membrane and the inside of the lips, we invariably see a distinct eruption. It consists of small, irregular spots, of a bright red color. In the centre of each spot, there is noted, in strong daylight, a minute bluish white speck. These red spots, with accompanying specks of a bluish white color,

[1] *Arch. Pediat.*, 1896, xiii. 918.

are absolutely pathognomonic of beginning measles, and when seen can be relied upon as the forerunner of the skin eruption."

Once seen, they can hardly be mistaken. They vary in number from two or three to countless numbers, and are most usually seen on the portions of the buccal and labial mucosa in contact with the teeth. In looking for them the lips should be well everted, and the cheeks drawn away from the teeth first on one side and then on the other, by the tip of the finger or by the handle of a spoon. Strong daylight is better than artificial light. In many cases no distinct red spots are to be seen, but the white specks look like particles of salt lying on the surface of the reddened mucous membrane. These white spots are adherent, but may be rubbed off, leaving a smooth pink surface.

When occurring in crowds, although the spots do not actually coalesce, they may give at first sight the appearance of a thin white glazing or false membrane. The buccal mucous membrane, not that of the palate, is the place where their presence should be sought.

These spots appear from twelve hours to three days before the skin exanthem, but cases have been known on which the spots were present as much as five days before the rash. They generally begin to fade as the skin eruption becomes well developed.

I have found this sign of great value in arriving at an early diagnosis of measles, but I am unable to say from personal experience whether these spots are absolutely pathognomonic of measles. Koplik says that cases with the usual morbilliform eruption without these spots are really cases of rötheln. Ross,[1] who has made a special study of these spots in Koplik's clinic, states that in some of the children suffering from rötheln "there was everything resembling measles in the examination of the skin. The children were covered with an eruption which many physicians would have called undoubted cases of measles. The Koplik's spots were absent in these cases, and the throat nearly normal. In almost all cases the temperature was 100° to 101°. Not only is rötheln a distinct disease from measles, but the Koplik's spots

[1] *Columbus M. J.*, 1900, xix. 64.

Fig. 1.

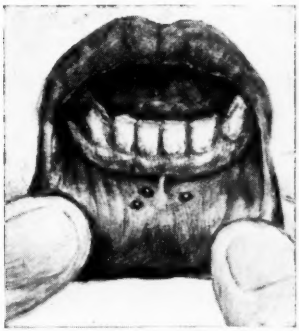

Fig. 2.

FIG. 1.—*An example of the spots described by Koplik during the early stage, while the red spots with bluish-white central speck are still punctate and discrete.*

FIG. 2.—*A later stage coincident with the skin exanthem; the bluish-white specks are much more numerous, but the red spots have coalesced.*

P. WATSON WILLIAMS *ad naturam del.*

are the only, and most valuable, means of differentiating these from true measles. This may account for many of the cases of measles without Koplik's spots. He (Koplik) maintains that such cases are really pronounced cases of rötheln." I may add that I have diagnosed such cases of measles without Koplik's spots, but I am not prepared to admit that they were cases of rötheln. Nevertheless I am convinced that when Koplik's spots are present they invariably indicate the existence of morbilli.

Sobel,[1] who has observed the characteristic spots in numerous cases of measles, has particularly examined the buccal mucous membrane of children affected with various skin eruptions—varicella, urticaria, scarlatina, vaccinia, purpura simplex and hæmorrhagica, congenital syphilis, erythema multiforme, scabies, miliaria, eczema, rötheln, impetigo simplex and contagiosa, drug eruptions (bromides, antipyrine)—and in no case were Koplik's spots observed.

Progress of the Medical Sciences.

MEDICINE.

Pneumonia is the subject of numerous papers in the *Practitioner* (February, March, 1900), whose editor still adopts the praiseworthy practise of devoting the greater part of his monthly number to one topic. Unfortunately he has no new discovery to announce, and his efforts are not quite worthy of being spoken of as a campaign against the enemy; nevertheless the subject of pneumonia is one of perennial interest, and in which the possibilities of the future are as great as the needs of the present.

Dr. Julius Dreschfeld[2] sums up the details of prophylactic, specific, and symptomatic treatment, and advises that "as the micro-organism of pneumonia is contained in the sputum, this should be disinfected either by a 5 per cent. solution of carbolic acid or a solution of 1 in 1000 of corrosive sublimate." He further advises "that weak and elderly people suffering from bronchial catarrh should avoid the sick-room of patients suffering from pneumonia." Dr. R. W. Philip prefers the name

[1] *N. York M. J.*, 1898, lxviii. 557. [2] *Practitioner*, 1900, lxiv. 251.

"pneumonic fever" to the more commonly accepted term "pneumonia," and remarks that "the physician is wisely guided who thinks of it less as a lung disease than as an acute continued fever of comparatively short duration with local manifestation, especially in the lungs. The local (pulmonary) lesion may be considered analogous to the intestinal lesion in typhoid, or the throat lesion in diphtheria or scarlatina. The local lesion is accompanied by systemic infection. The specific organism (the diplococcus pneumoniæ of Fränkel) has been discovered not only in the lungs but in the pleura, pericardium, endocardium, meninges, kidneys, spleen, and blood. There is abundant reason for the statement that the constitutional symptoms of pneumonia result from the formation by the diplococcus of a toxin—the so-called pneumotoxin. Such a toxin has been separated from cultures of the organism. If animals be inoculated with the toxin grave constitutional symptoms ensue, including pyrexia and circulatory disturbances. Thereafter, there would seem to be gradually developed an antagonising principle or anti-pneumotoxin, which may reasonably be expected in the near future to play an important part in the prevention and treatment of pneumonic fever."[1]

The difficulties in accepting the germ theory of the etiology of pneumonia are so great that much evidence is needful, and the arguments in favour of regarding the pneumococcus as the sole efficient cause of lobar pneumonia have been collated from French authors,[2] and "the constant presence of the pneumococcus of Talamon-Fränkel in lobar pneumonia, and the plurality of microbes causing broncho-pneumonia, are the distinctive elements which bacteriology permits us to recognise in the history of pulmonary inflammations (Netter)." This point has been further commented upon by Andrew H. Smith,[3] who remarks that "speaking generally, bronchopneumonia is shown to be associated with several varieties of pathogenic organisms; for example, the streptococcus, staphylococcus, Friedländer's bacillus, the tubercle bacillus, and others; but chief among them all is the pneumococcus, which, taking all cases together, is present either alone or in association with some of the others named, in at least fifty per cent. . . . The conclusions to which this evidence points are obviously these:—1. That the primary and secondary bronchopneumonias have a different bacteriological origin. 2. That secondary bronchopneumonia is for the most part due to streptococcus infection, derived from some source in connection with the air tubes, throat, or mouth. 3. That primary bronchopneumonia is of pneumococcal origin. 4. That pneumococcus inflammation occurs with almost equal frequency in the child and in the adult. 5. That pneumococcal inflammation takes a different form in each, in the adult producing massive consolidation and in the child disseminated

[1] *Practitioner*, 1900, lxiv., 265. [2] *Ibid.*, 164.
[3] *Twentieth Century Practice*, vol. xvi., 1899, p. 135.

patches of consolidation; in other words, that there are no real pathogenic distinctions between lobar pneumonia of the adult and primary lobular pneumonia of the child."

Dr. J. W. Washbourn[1] goes further into the question of pneumococcal infections, and finds that lobular pneumonia may be caused by several kinds of micro-organisms: the most frequent are the pneumococcus, the streptococcus pyogenes, and the influenza bacillus, and that we must "look upon pneumonia as a septicæmia, the inflammation of the lungs being simply a local attempt to shut in the cocci and prevent them from entering the circulation." The characteristics of influenzal pneumonia have recently been described by Dr. Whitla.[2] In his opinion the most remarkable and important characteristic of this form of pneumonia is its contagiousness, and this independently of influenza itself. It attacks equally those who have already passed through influenza, those suffering from it, and those who appear to have escaped.[3]

The paramount ascendancy of the germ is shown by the fact that lobar pneumonia is defined by Andrew H. Smith[4] as follows:—"An acute disease in which a specific parasite invades the air cells of one or more pulmonary lobes, where it grows in a fibrinous medium exuded from the functional capillaries, and generates a toxin that infects the system at large." He regards the disease, not as an inflammation, but as a germ culture, the medium for which is supplied from the functional vessels. "This structural immunity in an organ which is the seat of the most virulent disease is characteristic of pneumonia, and it is made obvious to us in the surprising rapidity of the process of recovery when the latter has once set in. For the lung to return to the normal state all that is wanted is a removal of the accumulated *materies morbi*."[5]

Dr. Ewart remarks[6] that "we have been accustomed to regard a short attack of pneumonia and a rapid clearing of the lung as much to be desired, and it will be difficult to convince us that we have erred in holding that belief. At any rate, we are indebted to Raven[7] for the novelty of his views on pneumonia and of the special construction which he places upon the clinical history of a case of pneumonia in a boy, aged twelve years, in which consolidation was rather delayed, but very rapidly disappeared—too rapidly, according to Raven—leaving in its train a long series of glandular and mediastinal suppurations. Raven regards consolidation as a conservative process. . . . He, therefore, deprecates the use of the ice-pack."

As regards the specific treatment, Dreschfeld points out that, although experiments in animals have shown that they can be rendered immune to inoculations with the pneumococcus, and

[1] *Practitioner*, 1900, lxiv. 272. [2] *Dublin J. M. Sc.*, 1899, cvii. 241.
[3] Quoted in *Practitioner*, 1900, lxiv. 325.
[4] *Op. cit.*, p. 3. [5] Quoted in *Progressive Medicine*, 1899, iii. 45.
[6] *Ibid.* [7] *Practitioner*, 1898, lxi. 269.

the blood serum of such animals has also been found to possess protective properties, and these facts have been made use of for the treatment of pneumonia in man, yet, "with the data at present available, it is difficult to arrive at a definite conclusion as to the value of the treatment."[1] Protective serum is now supplied by Dr. Pane, of Naples; it is administered by subcutaneous injection, in the same manner as the diphtheria antitoxin. The dose is from ten to twenty cubic centimetres, which may be given two or three times a day during the attack, until the constitutional symptoms have commenced to subside.

With reference to the method which has been described as jugulation by means of large doses of digitalis, it is singular to note how few physicians have had the courage to carry out Petrescu's method to the full; nevertheless "digitalis in recent years has held a prominent place in the treatment of pneumonia. With the recognition that the chief danger is from heart failure, it is natural to expect benefit from the use of a drug that is of such great service in cardiac diseases in restoring the rhythm of the contractions, reducing their frequency, and giving them greater force and efficiency."[2]

In spite of these considerations, the author of this quotation adds: "With my present views I consider the use of the drug in pneumonia without the simultaneous employment of an arterial dilator a highly dangerous and indefensible measure, and one that has contributed in no slight degree to the fatality of this disease."

Dreschfeld has used a fresh infusion of digitalis (20 grains to 6 ounces), and has given half an ounce every two hours. The writer has frequently given half-ounce doses of the ordinary pharmacopœial infusion every hour, and has not observed any unfavourable result, although he has not obtained effects worthy of being spoken of as jugulation. The routine treatment with tincture of digitalis and chloral, so highly recommended by Balfour, was found by Dreschfeld to have a good effect in overcoming the insomnia.

Dr. W. H. Thomson, commenting on the therapeutics of heart diseases,[3] remarks on digitalis: "The general effect of its action, however, is to diminish the size of the heart's cavities. The drug, therefore, is of the greatest service when the heart walls are over-dilated and too much residual blood remains after each systole from inability of the dilated cavities to contract strongly enough to expel their contents. . . . But here comes the important fact about digitalis, that in order to produce its contractile effect it must have a more or less normal muscle fibre to work upon. It is utterly powerless with degenerated heart muscle." Hence the drug would appear to be just the thing needed in pneumonia, where the heart-muscle is not commonly degenerated, but the heart-walls are commonly dilated.

[1] Dr. Washbourn, *Practitioner*, 1900, lxiv. 252.
[2] Andrew H. Smith, *op. cit.*, p. 115. [3] *Med. Rec.*, 1900, lvii. 442.

It is of interest to observe that Maragliano attributes to digitalis a specific action on the pneumococci, which are killed by a very small quantity of it, while the toxin of pneumonia when injected is also found to be partly neutralised by digitalis. He thinks that this peculiarity is an explanation of the fact that pneumonic patients will stand larger doses of digitalis than healthy persons.[1] Eustace also holds that digitalis is antagonistic to pneumonia, and that sufficient should be given to slow the pulse. Alcoholic stimulants tend to inhibit this specific action, and he feels sure that he gets better results by combining ammonia with digitalis.[2] The writer finds it is difficult to produce digitalis symptoms in patients with pneumonia. It seems to be almost impossible to give too much so as to destroy both the cocci and the patient.

The frequent occurrence and fatality of pneumonia amongst our troops in South Africa at the present time gives an especial interest to the views of Dr. Alfred Hillier on Dust Pneumonia. The occurrence of chronic interstitial pneumonia, and of the varieties of "pneumokoniosis" described by Arlidge,[3] have long been recognised, and have been looked upon as often the forerunners of phthisis; but it is now suggested that dust may be capable, under certain conditions, of exciting an acute inflammatory condition of the lung—the presence of pneumococci assisting the mechanical irritation of dust particles in bringing about this result. The statistics quoted by Dr. Newsholme[4] seem to support this view. The cloud of dust raised by the automotor car, and the necessary inhalation of much dust in every day cycling, should give us increasing evidence in this direction.

Some papers on the bacteriology of Epidemic Pneumonia in South Africa are quoted in *Progressive Medicine*.[5] An epidemic, with a mortality of 60 to 70 per cent., had raised the suspicion that the South African pneumonia was of a different type from that of the European disease. Kolle,[6] however, has demonstrated their identity. In 15 necropsies the diplococcus of Fränkel was found in 11, and the influenza bacillus in 4, and an examination of the sputum gave analogous results. Similar conclusions are reported to us from the Transvaal. The authors conclude that: (1) The diplococcus described is identical with the pneumococcus of Fränkel, but possesses greater virulence; (2) The pneumococcus is the causal factor of cerebro-spinal meningitis; (3) The pneumococcus affects the nasal mucous membrane first with rhinitis, leading to subsequent infection of the frontal and nasal sinuses, of the middle ear, of the parotid, of the lung, and of the meninges; while a pneumococcic septicæmia, fatal in itself apart from pneumonia or meningitis, may develop as a result of the pneumococcic rhinitis.

[1] *J. Am. M. Ass.*, 1898, xxxi. 472. [2] *Brit. M. J.*, 1898, i. 1656.
[3] *The Hygiene, Diseases and Mortality of Occupations*, 1892.
[4] *Practitioner*, 1900, lxiv. 46.
[5] 1899, iii. 47. [6] *Deutsche med. Wchnschr.*, 1898, xxiv. 425.

Another variety—the so-called Ether Pneumonia—is described by Dr. J. F. W. Silk.[1]

The occurrence of leucocytosis in pneumonia has received much attention of late, and Dr. Alfred Stengel[2] has recently reviewed and enlarged our knowledge thereon. Dr. Hector Mackenzie[3] remarks that "at present it cannot be said that an examination of the blood and a count of leucocytes in a case of pneumonia are of great practical importance. We usually possess, independently of such an examination, sufficient indications of the severity of a case of pneumonia." The method of treatment founded on the encouragement of leucocytosis, *i.e.*, the promotion of local suppuration by the injection of turpentine subcutaneously, does not appear to have met with much favour. Dr. Stengel, who tried it in one case, "thinks that the good result which followed may have been due to the local relief afforded by the abstraction of large numbers of leucocytes from the lungs rather than to phagocytic influence."

The following is a *résumé* given by Dr. Andrew H. Smith:[4] "In the view of the writer, the treatment of pneumonia should embrace the following points:

"An attack upon the pneumococcus through the medium of the blood, the object being that the exudate when it escapes into the air cell shall be impregnated with a substance that will unfit it to serve as a culture medium.

"Stimulation of the emunctories to throw off the poison as it forms.

"Sustaining the vital powers and particularly the heart—cardiac stimulants.

"Relieving the pulmonary circulation—vasodilators, venesection.

"Compensation for loss of respiratory surface—inhalations of oxygen.

"Reduction of excessive temperature—cold to surface, antipyretics (?).

"Relief of incidental symptoms."

R. Shingleton Smith.

SURGERY.

In writing the "progress of Surgery" for this number of the *Journal*, it seems to me that it would be well to give a short account of the more recently published results of the surgery of **malignant disease in the alimentary canal.** When a patient asks our advice as to the removal of an innocent tumour, only three questions need consideration—whether it need be removed, whether the whole growth can be removed without too serious a risk, and the fitness of the patient for any

[1] *Practitioner*, 1900, lxiv. 307. [2] *J. Am. M. Ass.*, 1899, xxxiii. 438.
[3] *Practitioner*, 1900, lxiv. 323. [4] *Op. cit.*, p. 122.

operation. But when we have to advise as to the removal of a malignant tumour we have also to consider the chance of a recurrence after removal, and the probable rapidity of its onset; and if it recurs, whether the recurrence is likely to be as painful or as quickly fatal as the primary growth. In balancing the patient's chances in our mind, we have to throw the risks of recurrence into the scale along with the risks of operation, and only when the chances of prolongation of life or cure of the disease weigh them down shall we be able to recommend operation. That we must be able to get well beyond the growth in its removal is an essential condition of success, for the tissue surrounding it is almost certainly invaded by growth which the microscope would reveal.

I shall endeavour to answer the following questions with regard to the forms of malignant growth considered: 1. What is the outlook for the patient without operation? 2. What is the risk of removal of the growth? 3. What chance is there of freedom of recurrence? 4. If the disease recurs after operation, is it likely to be less painful or less rapidly fatal than the primary growth?

The prospects after operation for cancer of the tongue were considered in my Surgery Periscope for last June.

Carcinoma of the stomach.—The duration of life after a diagnosis of cancer of the stomach can be made is not long. In 26 cases of Krönlein's, seen before the disease was very advanced, the average duration of life was about eight months.[1] Hale White[2] says "the duration of the greater number of cases is much less than eighteen months, and often is less than a year." During the period that the patient survives his sufferings are often great. As a rule the growth is situated at the pylorus, and can be removed by resection of this portion of the organ. The operation is now by no means the desperate measure it was ten years ago, indeed the latest statistics of the operation are distinctly encouraging. In 1898 Krönlein published[3] a consecutive series of 24 cases of pylorectomy with five deaths, and only two deaths in the last 20 cases. He selected his 24 cases very carefully out of 67 cases seen by him. In 22 cases he explored only and did not remove the growth. Kocher has published his last series of 23 cases of pylorectomy with only two deaths.[4] Kocher states that carcinoma of the stomach is now a curable disease, and patients from whom it has been removed may live for years, well nourished and with a good digestion.[5] He has had a case of survival for nine years after pylorectomy, and there are several cases of freedom from recurrence for three years after operation.

If when the abdomen is opened pylorectomy is not found to

[1] Quoted by Barker, *Brit. M. J.*, 1899, i. 1267.
[2] Clifford Allbutt's *System of Medicine*, vol. iii., 1897, p. 566.
[3] Quoted by Barker, *Brit. M. J.*, 1899, i., 1266.
[4] *Ibid.* [5] *Brit. M J.*, 1898, ii. Epitome, p. 105.

be possible, on account of adhesions or secondary growths in the liver or glands, an opening can be made between the stomach and jejunum (gastro-enterostomy) in order to relieve the gastric symptoms, especially in cases of considerable pyloric obstruction. Life is not, however, likely to be nearly as much prolonged by this operation as by pylorectomy. Thus Stendel (from Czerny's clinic) gives the mortality of the operation for cancer of the stomach as 34.5 per cent., and for other diseases as 14.3 per cent.[1] Stendel also gives the average duration of life after gastro-enterostomy for cancer as 12.6 months but if cases of doubtful diagnosis, in which life has been prolonged for years, are excluded, as seven to eight months.[2]

There are eight cases of complete removal of the stomach for malignant disease with a mortality of 50 per cent., and 14 cases in which three-quarters of the stomach have been removed with a mortality of 28.5 per cent.[3] In my own case of resection of three-quarters of the stomach for sarcoma, the patient reported himself as quite well in February of this year, *i.e.* eight months after operation.

Carcinoma of the colon.—Maylard[4] says: "It is usual for death to occur in uncomplicated cases in less than a year from the onset of the earliest symptoms." But very often the earliest symptoms of growth in the colon are those of intestinal obstruction. Resection of a growth in the colon used to be a very dangerous operation, and still involves considerable risk. Kendal Franks in 1889 communicated to the Royal Medico-Chirurgical Society statistics of a large number of these cases with a mortality of 40 per cent.[5] Some much more encouraging statistics have of late years been published[6] by the surgeons of the Leeds Infirmary. In 26 cases the mortality was about 28 per cent. In nine cases of simple suturing five died; in five cases in which the Murphy button was used only one died; and out of 12 cases in which the decalcified bone bobbin was used only one died.

There are cases on record of non-recurrence for a considerable length of time. The patient from whom I excised the whole cæcum and some glands for carcinoma in November, 1898, is now in perfect health.

Cancer of the rectum.—The average duration of life in cancer of the rectum after the first symptom has appeared is two years, and, like cancer of the tongue, the disease causes great distress in its later stage. This distress can generally be relieved by colotomy, which when performed for this purpose has a mortality of only 2 or 3 per cent. Obstruction may be relieved by colotomy also, but in this condition there is a higher mortality. Pain from infiltration of the base of the bladder or sacral nerves

[1] Quoted by Mayo Robson, *Lancet*, 1900, i. 833. [2] *Ibid.*
[3] *Ibid.*, 842.
[4] *The Surgery of the Alimentary Canal*, 1896, p. 471.
[5] *Med.-Chir. Tr.*, 1889, lxxii. 211. [6] *Brit. M. J.*, 1896, i. 845.

would not be relieved by colotomy. The mortality of excision of the growth varies greatly in the practice of different surgeons, and has as a rule been greater if the disease has been situated high up in the rectum and can only be removed by the sacral route, with perhaps a free opening in the peritoneum (Kraske's operation). The old limitation of operation to cases in which the growth was confined to the lower end of the bowel and could be removed without opening the peritoneum has now been abandoned by many surgeons,[1] and though as a rule Kraske's operation for removal of cancer situated high up has a higher mortality than the perineal operation, this has not been the case in the hands of some surgeons. Although in Kraske's first 29 cases the mortality was as high as 34.5 per cent., after improving his method, in his last 51 cases it was only 9.8 per cent.[2] Swinford Edwards has operated on 14 cases by Kraske's method with only 14 per cent. mortality.[3] Ball has operated on 17 cases by the sacral method (Kraske's) with only one death.[4] but as he is in favour of this method rather than the perineal, and would not therefore reserve it for cases of cancer high up in the bowel, probably several of his cases did not necessitate as severe an operation as is usually the case where Kraske's method is adopted. Recognising this however, a mortality of 5 or 6 per cent. is very good, even for perineal operations.

The results of excision of rectal cancer eight years ago were worked out in a very exhaustive paper by McCosh of New York in 1892.[5] He collected statistics of 375 operations, some of which were by the perineal route and some by Kraske's method. They were nearly all from the records of German surgeons. The mortality was 19.1 per cent., and there were 11 per cent. of cures. At the present time the mortality of the perineal operation in cases in which the disease has not invaded the neighbouring parts is about 15 per cent.[6] In any series of cases of Kraske's operation it has seldom been more than 25 per cent., and, as already mentioned, in Kraske's last 51 is as low as any favourable cases would give by the perineal route. Paul[7] has excised cancerous growths from the bowel in 24 cases, and in 16 of these by Kraske's method, with a mortality of 16 per cent. Three of the deaths were from Kraske's operation.

If then we take the mortality after excision of the growth to

[1] Mr. Swinford Edwards (*Brit. M. J.*, 1897, i. 1210) says: "I know of three or four cases in my own practice submitted to excision and now well and engaged in their various occupations without any sign of recurrence after periods varying from one and a-half to six years, who have been advised by hospital surgeons of repute that the disease did not admit of removal, and that colotomy was the only thing left for them."

[2] *Ann. Surg.*, 1897, xxvi. 371. [3] *Loc. cit.* [4] *Brit. M. J.*, 1897, ii. 1069.
[5] *N. York M. J.*, 1892, lvi. 259.

[6] Ball, *The Rectum and Anus*, 2nd Ed., 1894; Treves's *System of Surgery*, 1895-96; and Platt, *Med. Chron.*, 1894, N.S. i. 419.

[7] *Lancet*, 1897, ii. 78.

be about 15 per cent., what advantage has the operation to offer compared with the risk? Colotomy, with almost no mortality, will probably relieve the patient's distress. Will excision of the growth give him any considerable chance of cure, or of prolongation of life for any considerable time? This question has been very fully discussed by Watson Cheyne.[1] He alludes to the hopeful fact that affection of glands and metastatic deposits are of late occurrence in cancer of the rectum,[2] unless the disease is unusually rapid in its course, and he points out that recurrences after operation frequently do not take place for several years, and quotes Czerny's statistics, which give 10 cases of non-recurrence for three years and over. Paul has also had three cures in 14 cases.[3] Watson Cheyne only recommends excision of the growth in the most favourable of cases; but we must take into consideration the fact mentioned by him that in Germany the radical operation is carried to an extreme extent, and adhesions to the bladder and prostate are not considered contra-indications, and Genzmer goes so far as to advocate the operation although metastatic deposits in the liver are present. This would give us a much smaller mortality for properly selected cases, for I think most of us would agree with Watson Cheyne that infiltration of neighbouring parts such as the bladder and prostate would be a distinct contra-indication to operation. Keen[4] has had 33 per cent. of cures in 15 cases of excision of cancer of the rectum, and he thinks patients live 18 months longer than they do after colotomy. Allingham,[5] who has performed excision of cancer of the rectum 62 times, draws attention to the fact that the older the patient the less the chance of recurrence after operation. He says that over 60 is "extremely favourable in suitable cases;" but if under 45 he thinks rapid recurrence certain, even if the growth does not extend much above the anus.

I have during the past six months operated on three cases of rectal carcinoma by the posterior or sacral method. In the first case the growth was very high up, and there had been some suppuration between it and the back of the uterus, which caused adhesions there. The peritoneum was freely opened, and after excision of the growth, the two ends of the rectum were sutured together. The posterior part of the line of sutures gave way and fæces discharged through this opening, but eventually it very greatly contracted, and the passage of a considerable quantity of fæces took place through the anus.[6] In the second case the growth was not quite so high, but was high enough to

[1] *Brit. M. J.*, 1896, i. 581.

[2] As to absence of metastatic growths, see also report (*Brit. M. J.*, 1900, i. 1031) of statement by Krönlein at the Surgical Congress, that in nearly 50 per cent. no metastasis was found *post mortem*.

[3] *Loc. cit.* [4] *Therap. Gaz.*, 1897, xxi. 225. [5] *Lancet*, 1896, i. 1133.

[6] I hear the patient has resumed her work as a charwoman, and that there is very little fæcal discharge from the sacral fistula.

require a free opening of the peritoneum. The divided rectum was sutured as in the first case, but also gave way posteriorly. No peritoneal or pelvic complication arose, but great restlessness which set in early after the operation (without high temperature), developed into insanity and he died exhausted some weeks later. In the third case the growth was not high enough to require an opening into the peritoneal cavity, or more than resection of the coccyx; but by means of suturing the divided rectum an almost perfect result has been obtained, the anus is normal, the posterior wound has soundly healed, and the only abnormal condition present is a need to hurry when he feels a desire to evacuate the bowels, due to a somewhat relaxed condition of the sphincter ani.

C. A. MORTON.

OBSTETRICS.

The use of the intra-uterine douche.—E. P. Davis[1] describes the chief dangers to be apprehended from intra-uterine douching as being, firstly, the risk of septic infection being induced by the douche; and, secondly, the risk of hemorrhage from detachment of thrombi in the uterine sinuses.

But the indications for its use are also just these same two conditions—namely, hemorrhage and sepsis. In septic conditions its use is based on the sound principle of removing retained and possibly decomposing clot, membrane, placenta, etc., from the uterine cavity by means of a stream of sterile fluid.

He advocates the use of sterile salt solution in preference to carbolic acid or other phenyl derivatives in cases where much depression is present and loss of blood has occurred, and considers that mercurial solutions should never be used in the uterus; he prefers to use the douche curette without anæsthesia, both for exploration and cleansing purposes, since he does not consider the finger long enough for the purpose, and uses a tube which is apparently a modification of Budin's. With regard to the use of the intra-uterine douche in hemorrhage, he remarks that it is not easy to maintain asepsis in these cases, and very rightly emphasises the necessity of having every preparation made in case of bleeding occurring, so as to minimise the risk of infection as much as possible. He also recommends the use of the iodoform or sterile gauze-tampon as an adjuvant after the use of the douche for hemorrhage. If retention of a portion of placenta or membrane is suspected, he advises the use of the douche curette for its removal should hemorrhage supervene, this being a fertile cause of secondary *post-partum* bleeding.

The value of intra-uterine douching has been brought to my own notice through the records of the Maternity Department of the Bristol Royal Infirmary. We have there for years been in

[1] *Am. Gynæc. & Obst. J.*, 1900, xvi. 196 (discussion), 272.

the habit of using an intra-uterine mercurial douche in every case where any instrument or the hand had been introduced into the uterine cavity for any purpose whatsoever. So far, in only one of a large number of such cases has any septic trouble occurred; while in the remaining cases in which no interference has taken place, in many of which no vaginal examination was made, the proportion of septic cases is much higher.

Mercurial poisoning is certainly a risk, but when we consider that the total amount of the salt in a quart of solution (1 in 2000) is 10 grains (about), and that to exceed the medicinal dose by the mouth it is necessary that half-an-ounce of solution should be completely absorbed, it strikes one that the danger can be exaggerated. I have met with one case in which salivation occurred after the persistent use of intra-uterine mercurial douches; this was in the early days of its use as an antiseptic in midwifery, when the necessary precautions were not well understood. The danger of mercurial poisoning following the use of a single douche of mercurial salt is infinitesimal.

The preparation of a hot douche in all cases, with sterilisation of the tube and every preliminary precaution, will not be lost on any one who has had to treat a case of real *post-partum* flooding. A case is recorded in which a Continental practitioner allowed his patient to bleed to death while making preparations to secure asepsis. The danger in severe hemorrhage is one that admits of no delay; a rush of blood forming a stream apparently nearly as thick as the wrist, and shooting out from the patient's vagina two or three feet into the room, is not going to allow any time for precautions to avoid sepsis if the patient's life is to be saved. All precautions should be taken beforehand. The above is a personal experience which I hope never will be repeated, although the patient was successfully steered between the Scylla of death from hemorrhage and the Charybdis of septic infection.

Intra-uterine douching should be reserved for instrumental and operative cases, for cases of hemorrhage, and for cases of suspected septic infection with high temperature; the solution used is not important, but it must be sterile; in septic cases, if its use is followed by a rise of temperature, exploration of the uterus should follow. The intra-uterine douche is perfectly safe if used intelligently and with proper precautions, and has proved invaluable on more than one occasion in cases under my care, when either *post-partum* hemorrhage occurred or where septic infection, proved bacteriologically afterwards, was suspected at the time of its use.

The **treatment of septicæmia** by anti-streptococcic serum is a subject which has lately become of great importance, and although at present the indications for treatment, owing to the difficulty of making an exact bacteriological diagnosis in time for the treatment to be successful, are not very clear, yet the increasing record of successful cases makes us hope that eventually

this method will be reduced to an exact one and placed on a footing more secure than the empirical position it now occupies. Herman[1] records two cases in which life appears to have been saved by the use of the serum.

Considerable divergence of opinion was evident during the discussion of Dr. Herman's cases, some condemning the use of the serum altogether except in cases where the existence of the streptococcus was definitely proved; the general consensus was that its use should not be allowed to exclude the application of more radical measures. Seigneux[2] reports a case in which a primipara of 21 was attacked with acute sepsis at the close of pregnancy, which did not improve on her delivery a few days later. A subcutaneous injection of 600 c.c. of salt solution was given without benefit, but after the injection of 20 c.c. of Marmorek's serum her symptoms abated and she gradually recovered.

A committee of the American Gynecological Society[3] have lately been engaged in the investigation of the results of serum treatment, and made a collection of 354 cases treated in this way, the analysis of which gave some startling results.

The cases collected were obtained as follows:—From France 214, Germany 15, Great Britain and America 125.

Of the collected cases 72, or 20.6 per cent., resulted fatally; but of those cases in which the streptococcus was demonstrated the mortality was 33 per cent., and the committee doubted whether the natural mortality was as high as this, and quoted Fischer, who in 60 cases of pyæmia met with 32 deaths, 19 recoveries, and 9 not traced (this mortality, it should be noted, is one of 53 per cent.).

Whitridge Williams, Pryor, and Fry gave details of their own special treatment of these cases. Whitridge Williams gives a single intra-uterine douche of sterile salt solution after a culture has been taken from the uterine cavity, and relies on large doses of strychnia and alcohol. Pryor opens the posterior *cul de sac*, plugs the pelvis tightly with iodoform gauze, and gives large injections of normal saline, both subcutaneously and by the rectum. Fry, after collecting the discharge from the uterus for cultivation, uses the intra-uterine douche until the bacteriological diagnosis is made, and then stops the local treatment and administers the serum in large doses. The conclusion of the committee was that Marmorek's serum does *not* cure streptococcus infection. Spencer,[4] in a paper read at the meeting of the British Medical Association, quoted the above statistics and opinions; he considers the use of the serum as unscientific and superficial, and comes to the conclusion that it is useless.

[1] *Tr. Obst. Soc. Lond.*, 1899, xli. 346.
[2] *Centralbl. f. Gynäk.*, 1899, xxiii. 1489; abstract in *Brit. Gynæc. J.*, 1899–1900, xv. 645.
[3] *Phila. M. J.*, 1899, iii. 1199; abstract in *Brit. M. J.*, 1899, i. Epitome, p. 94.
[4] *Brit. M. J.*, 1899, ii. 965.

After reviewing the various opinions, one is inclined to conclude with their supporters that the serum is of little use: before doing this a few facts should be borne in mind, and any one who cares to take the trouble can easily gain the information for himself. Taking Bristol alone, the mortality from puerperal fever is between 60 and 70 per cent. of the notified cases. A reference to the Medical Officer of Health's report will easily verify the correctness of this; I am quoting from memory, as I have not verified the figures lately,—at any rate, it is far in excess of 33 per cent. No doubt it will be objected that this includes all cases, not including streptococcus infections only. That of course is obvious, and does not in reality detract from the importance of the figures. Another point is, that the serum is only used in the more acute cases; *e.g.*, a culture taken from the uterus of a woman who had developed a high temperature was pronounced to be pure streptococcus of a most virulent type; but she recovered after a single intra-uterine douche. (The case is recorded in the books of the Bristol Royal Infirmary.) This case would have been passed over had it not been for the culture.

Further, it is noteworthy that cultures from the uterus, even in bad cases, are nearly always sterile if one intra-uterine douche has been given: this proves nothing, as in one such case in which I removed a small piece of placenta streptococci grew in profusion from the uterine surface of the placenta after removal, although it had been drenched with corrosive sublimate solution, 1—2000, during the process of removal. Therefore a sterile culture from the uterine cavity does not necessarily prove that a streptococcic infection is not present. Another point that has struck me is the difference in the mortality rate between cases treated early and those treated late. In many cases the invasion can be abated by prompt local treatment; but these may be none the less streptococcic infections: when several hours have elapsed before treatment the mortality is enormously increased.

Waiting for bacteriological diagnosis means a lapse of thirty hours at least. If the patient has a streptococcic infection, her chance is about halved by this, even although local measures have been adopted. Therefore, if the serum is to have a chance of doing any good, it must be used at once, without waiting for bacteriological diagnosis. It seems doubtful whether it is harmful; and although we cannot use it at present except empirically, we shall only do our patients harm by making each case one for strictly scientific investigation. Personally my experience has been that it is not harmful, and though not always successful in saving life, it has, as a rule, caused amelioration of the symptoms, checking headache, reducing fever, and improving, at any rate temporarily, the patient's condition.

In one case in which it was used in conjunction with the

intra-uterine douche alone, the effects were most striking, the temperature falling markedly after each injection, and ceasing to rise after the third injection, the patient making a good recovery.

Ahlfeld[1] in puerperal fever and protracted difficult labour, of which he records 80 cases of the two together when infection was suspected, has used intra-uterine injections of alcohol of a strength of 50 per cent. with good results, fever disappearing after one or two injections, and the patients escaping any serious uterine affection. In Switzerland out of 2900 deaths in childbed, 1536 were due to puerperal fever, or 53 per cent. This forms rather a striking commentary on the mortality of 20.6 per cent. in the cases recorded by the American committee after serum treatment, and also on the mortality of 33 per cent. in the cases where streptococcus infection was proved and the serum used.

WALTER C. SWAYNE.

Reviews of Books.

A Text-Book of Physical Chemistry. By Dr. R. A. LEHFELDT. Pp. viii., 308. London: Edward Arnold. [1899.]

The importance of physical chemistry has only been recognised during the last decade, and Professor Lehfeldt is to be congratulated on being the first to write an English book on the more modern aspects of the science; and it is a well-written and readable treatise, "by no means written to suit any examination." The modern theory of solution is clearly stated; unless the exact mechanism of solution is known, it is impossible to form a sound judgment on physiological processes, or an explanation of the phenomena of absorption and secretion; but in spite of this it comes into no medical curriculum and is quite unknown to the average medical student. Chapter ii., on Physical Constants, contains a brief and accurate account of S. Young's work on van der Waal's theorem. The omission here of specific-heats and of Dulong and Petit's classical work is noticeable; the subject is dismissed in another part of the book as being an ill-defined quantity, but its great value to the atomic theory of matter would alone have warranted a better notice. When dealing with the subject of polarised light, it might have been more clearly brought out that such investigations have led to one of the most fascinating developments of chemistry in recent times, the tri-dimensional conception of the arrangement of the

[1] *Brit. Gynæc. J.*, 1899–1900, xv. 646.

atoms in the molecule. The greater part of the work is devoted to the extremely important principles of thermodynamics and their application to chemical problems, and is written in such a manner as to be particularly useful to the more advanced student.

Encyclopædia Medica. Under the General Editorship of CHALMERS WATSON, M.B. Vol. III.—*Diphtheria* to *Food*. Pp. vi., 545. Edinburgh: William Green & Sons. 1900.

The principal articles of this volume number forty-five, the work of as many different writers. The first, on *Diphtheria*, is by Dr. E. W. Goodall, a great authority on this subject, and his views are very definite. "The cardinal rule in the antitoxic [treatment] is—Inject early. If the treatment is commenced on the first day the dose should be 1500 units at least; it will usually be unnecessary to give more than 2000. But if it be delayed, the amount must be increased up to 8000 or 10,000 units, according to the severity of the case. It is advisable to repeat from half to the whole first dose within twenty-four hours if the local exudation shows no sign of resolution. With respect to the total amount to be administered, though as far as the writer knows (and he has often injected from 30,000 to 50,000 units) the limit is set only by the volume of the serum that can with convenience be injected, yet his experience leads him to say that little is to be gained by giving more than 16,000 units during the first twenty-four hours from the commencement of the treatment." He approves of local treatment by mild alkaline boric douches, and for private practice he prefers tracheotomy to intubation, which latter procedure he considers to be inadmissible and inexpedient in a considerable proportion of the cases. We cannot endorse the rather sweeping condemnation of intubation in private practice, for it is only in exceptional circumstances that skilled assistance cannot be available for all difficulties that are likely to arise. The author seems to be unacquainted with O'Dwyer's special tubes for loose membrane, through which membranes may be readily expectorated. He advises that the patient should be kept in isolation for at least four weeks from the commencement of the illness. His statistics of the mortality in the Metropolitan Asylums Board Hospitals show a reduction in the case of those admitted on the first day of the illness from 22.5 to 3.8 per cent.; on the second day, from 27.0 to 12.1; and on the third day, from 29.4 to 20.9; while among those admitted later there has been little improvement.

Dr. Willoughby gives excellent rules for *disinfection*, and considers that the common method of aerial fumigation by means of sulphur is very inadequate. He advises a solution of formaline, 1 part to 20 of water, for clothing.

A chapter on *Drug Eruptions*, by Glasgow Pattison, includes an account of the antitoxin rashes: he observes that the antitoxic principle employed has nothing to do with their causation, nor are they due to any antiseptic which may be used in their preservation. They depend entirely on the serum itself, as is proved by the fact that the normal horse serum produces them, and are in some way connected with the constitution of the individual horse.

No one is better suited than Dr. Davidson to describe the details of *Dysentery*, whose study leads to the conclusion that the active and essential pathological entity is a variety of the bacillus coli, and other than the amœbæ which have been demonstrated in some varieties of the disease.

Seven papers on *Diseases of the Ear*, all by well-known specialists occupy ninety pages, and leave little further to be said thereon.

The article on *Eczema* by Dr. Leslie Roberts is very original, and its treatment resolves itself into a definite piece of work in dynamics. All successful treatment is based on local expurgation, and must be directed to the assisting and accelerating of this process. He attaches no importance to any constitutional treatment, and states that the importance of diet is commonly exaggerated.

Glénard's disease, *Enteroptosis*, is described by Dr. Gillespie; *Epilepsy and Epileptic Colonies* by Dr. Aldren Turner, who is visiting physician to the colony at Chalfont; *Facial Hemiatrophy, Paralysis, and Spasm* by Dr. J. S. Risien Russell. Many other articles are worthy of especial mention, and a chapter on *Food*, by Dr. E. W. Hope, points out the differences between milk as Nature intended it and milk which has gone through the many vicissitudes which necessitate its sterilisation. This concludes a volume styled by a weekly journal as "The book of the month."

On the Principles which Govern Treatment in Diseases and Disorders of the Heart. By Sir Richard Douglas Powell, Bart., M.D. Pp. 118. London: H. K. Lewis. 1899.

Perhaps the most interesting of these Lumleian lectures is the first, dealing with so-called functional diseases of the heart. The description of the neurotic temperament is lucid, and based upon discriminating observation. The knowledge of character of necessity plays an important part in the treatment of functional disease, as well as in diseases of more definite character, the symptoms of which may be aggravated by a neurotic disposition. The advice given for the management of such cases by Sir Douglas Powell contains the sound commonsense of a practical physician. In the two later lectures there is perhaps nothing worthy of special comment except the treatment of malignant endocarditis by injections of yeast-culture,

and by nuclein. Of five cases treated with injections of yeast, one recovered. A table is given of the published cases of malignant endocarditis treated with anti-streptococcic serum up to the time of the lectures. In fourteen cases there were three recoveries.

Albuminuria and Bright's Disease. By NESTOR TIRARD, M.D. Pp. 362. London: Smith, Elder, & Co. 1899.

This is a detailed and careful exposition of the majority of kidney diseases, studiously moderate in tone, and the fruit of matured study and wide experience. It commences with an apology for the title, which may be thought wanting in scientific precision, but sufficiently expresses the aim of the author. He, like Sir George Johnson, looks upon Bright's class of kidney troubles as secondary to a general constitutional disease, while albuminuria, though so frequent a symptom, is found also in a large number of diseases where the kidney does not undergo any organic change. Thus besides extra-renal albuminuria and that seen in Bright's diseases, he recognises that due to mechanical changes, *e.g.* in heart disease, and to changes in the blood from fevers and toxins, as well as purely functional and cyclic forms. It is not very clear why he does not include most forms of Bright's disease under the results of intoxications, but apparently he would say the poison in them is an unknown one, if it actually exists; and on the other hand, the toxic albuminuria of fevers differs in that it does not usually lead to structural changes of a permanent character. The puerperal form is recognised as of renal origin, though sometimes unassociated with structural changes, and passing away with remarkable rapidity. In this, as in other subjects, we find various theories given, but the author does not regard the question as ripe for dogmatic statements. The tests for albumin recommended are the nitric acid, cold and after boiling, trichloracetic and picric acids. The fallacy from mucin or nucleo-albumin with the last named is not mentioned, and we wish that the diagnosis of this body from serum albumin by other tests had been given more fully. Dr. Samuel West discussed the matter very ably in his recent lectures, and pointed out the sources of error.

It would have been well to add a definite rule for deciding whether the albumin in urine containing pus or blood is due solely to these substances or not. By counting the leucocytes present we can, according to some authorities, estimate the albumin due to these conditions and compare it with the total amount present. An interesting discussion is to be found on the much debated subject of prognosis in functional albuminuria, and careful precautions are enjoined lest a true renal disease should be overlooked. The author, after a long experi-

ence in insurance work, is of opinion that real cases of this class very rarely give rise to permanent renal trouble.

On the whole, the work is full of information, though a little wanting in definiteness. The style is clear, but the same subject is discussed in different places, so that a good deal of repetition ensues, and it is not always easy to find the author's final views. We have only noticed a single misprint, "tannaform," for "tannoform," a word which has as yet hardly attained to settled use (page 259). The index is a valuable addition to the book, and the beauty of the coloured plates of retinal changes, after drawings by Stanford Morton, will be at once recognised.

Heart Disease: with Special Reference to Prognosis and Treatment. By Sir WILLIAM H. BROADBENT, Bart., M.D., F.R.S., and JOHN F. H. BROADBENT, M.A., M.D. Third Edition. Pp. xiii., 420. London: Baillière, Tindall and Cox. 1900.

The third and enlarged edition of this book contains a few illustrations and a coloured frontispiece from a drawing of a case of aortitis.

Sir W. H. Broadbent states that pulmonary and apical systolic murmurs may be audible for days, or even weeks, over the hearts of young men who have indulged in unusual exertion. Apparently writing in ignorance of Dr. Foxwell's theory of the causation of the pulmonary systolic murmur, Sir Wm. Broadbent unwittingly gives it his support. He considers dilatation of the right ventricle is present in these cases, but finds it difficult to explain the presence of the pulmonary systolic murmur.

A chapter is given to fatty degeneration of the heart. The remarks upon the clinical symptoms are interesting, if by fatty degeneration we understand a failure of the heart muscle from various causes occuring after middle life. Fatty degeneration may occur as a result of disease of the coronary arteries, but we have never met with death from such a cause. Fibroid disease of the myocardium is common, and various degrees of dilatation of the heart are associated with chronic Bright's disease or over-indulgence in alcohol, but fatty degeneration of the heart as a cause of death must be very rare, except in acute diseases, such as diphtheria.

The book is a work written by a clinical physician of great experience, and from the clinical standpoint is valuable, containing many interesting observations, such as the one abovementioned, upon the length of time cardiac murmurs may be audible over the hearts of healthy young adults after exercise. The remarks upon slight degrees of cardiac pain are instructive, but of greater importance are the opinions expressed upon

prognosis in the various forms of heart disease. No question in this branch of medicine is more important than that of prognosis, and few, if any, physicians have had the opportunities of Sir Wm. Broadbent for arriving at definite conclusions upon the subject.

Mental Affections: an Introduction to the Study of Insanity. By JOHN MACPHERSON, M.D. Pp. x., 380. London: Macmillan and Co., Limited. 1899.

The author does not lay claim to the production of a text-book on insanity, but merely to a somewhat expanded edition of lectures delivered to his class. We think that, even as the book stands, it is more fitted for the advanced student of mental disease than for the needs of the ordinary curriculum, and we should welcome certain enlargements of its scope which would equip it for use as a text-book. With this premise, we cordially commend the volume before us; it gives ample evidence of conscientious preparation, careful and independent thought, and comprehensive literary research. There are not, nor should there be in a work more especially designed for students, frequent attempts to expound original views, but the author for the most part treats his subject with a freshness and freedom which engross the attention. The histological and morbid anatomy sections are, we think wisely, dealt with rather briefly; the more so as no plates illustrate the letterpress; within the limited space a careful epitome of recent views has been given. The chapter on Cortical Localisation appears to be mainly an abstract of Fleschig's researches; we note that the gyrus fornicatus and subiculum cornu Ammonis are quoted as portions of the limbic lobe, but it is nearly certain from Elliott Smith's work that the true limbic lobe does not include either of these parts. At page 112 the statement is found of an ocular sensation being conveyed *viâ* the optic nerves to the cortical centre in the first temporal convolution; this is doubtless an unwitting error, the said region being auditory in function.

In considering the pathogenesis of disordered mental action, the author propounds his working hypothesis, which deals with the increased or diminished resistance of the neuron and dissociation of grouped neurons, normally in equilibrium. The functional abeyance of a neuron involves the lessened activity of the nerve-elements in physiological continuity with it, and this condition is assumed to underlie melancholia, there being underaction and increased resistance in higher ideational centres and inhibition of lower sensory and motor centres. These states are correlated to the mental pain, slow reaction, and diminished sensibility. It is not clear to us how agitated forms of melancholia are explicable upon this hypothesis, but the author later on discusses this question; he considers that the intellectual centres, though resistive, are by no means

wholly inactive, the pent-up activity finds vent through other channels, and if the malady be acute is expressed in motor agitation. In mania, though a more profound abeyance in consciousness is asserted, there is supposed to be hyperactivity and lessened resistance in superior ideational planes, and consequent removal of inhibition from lower centres "which pour their stimuli unrestrainedly into the ideation centres." The term inhibition, we presume, must in the first case be understood as want of stimulus; in the second, in the usually accepted sense of control. The author, then, apparently regards the deeper reductions of mania as connected with over-excitation of high ideational centres, not as a more profound abeyance in their activities. An alteration in the dynamic state of ideational centre-neurons, *plus* or *minus*, is supposed to account for alternating conditions of excitement or depression.

The section on Cerebral Dissociation is well and attractively written, and obsession, delusion, and hallucination are defined, analysed, and illustrated with care.

The clinical section of the book is thoroughly good, and the student's grasp of the essential types of insanity is not made uncertain by a voluminous and entirely needless classification. Paranoia is written of with a masterly knowledge of its characteristic features, and in a simple yet graphic way. The author places general paralysis amongst the toxic disorders; he believes an important part in its causation to be played by syphilis, but only as a para-syphilitic poison. The tissue changes may result from continued action of this toxin, or from premature degeneration due to previous toxicity of blood, and, further, from products (cholin) of nerve tissue disintegration. The volume is produced with an extreme care most creditable to author and publishers.

Selected Papers on Stone, Prostate, and other Urinary Disorders. By REGINALD HARRISON, F.R.C.S. Pp. 190. London: J. & A. Churchill. 1899.

Several valuable papers by the author have appeared on the subject of urinary disorders since the last edition (1893) of his work on the *Surgical Disorders of the Urinary Organs*, and the present book is composed of these articles which have been brought up to date. The chapters are full of important suggestions, bearing the weight and authority of one so well known in this branch of surgery. The author's views on vasectomy for prostatic enlargement are well known, and he formulates the indications for this operation by suggesting its use in those cases of obstruction caused by the prostate where the enlargement is general and not limited to a pendulous lobe, and where the gland, from its feel, has not become largely fibrotic, but apparently retains a fair proportion of its secreting and muscular elements. The book is most instructive, and its

chapters record a considerable advance in the ordinary treatment of affections of the kidneys and bladder.

The Cerebro-Spinal Fluid; its Spontaneous Escape from the Nose. By StClair Thomson, M.D. Pp. vii., 140. London: Cassell & Company, Limited. 1899.

For many years after the time of Galen it was believed that the fluid in the ventricles of the brain found a regular exit from the nose by way of the infundibulum. Schneider, in 1655, was the first to show that the fluid discharges from the nose came from the mucous membrane, and that there was no direct communication between the nose and the ventricles of the brain. Galen, however, was not so much in error as is generally supposed, for Dr. StClair Thomson has met with the case of a young girl who suffered from a constant dripping of fluid from the nostrils, amounting to about fifteen ounces in twenty-four hours, and this fluid when examined was found to be cerebro-spinal fluid. It caused her no inconvenience beyond the annoyance of a constant dripping, and all efforts at alleviating the condition proved futile. It was evidently an abnormal physiological condition due to an open canal between the cranial fossa and the olfactory cleft, and its interest depended chiefly upon its rarity. The author has collected notes of nine other cases where the discharge from the nose was undoubtedly cerebro-spinal fluid, and of numerous others where it was so in all probability, so that the condition must be looked upon as one which may be met with from time to time.

Dr. Thomson took the opportunity to make some interesting observations upon the composition and function of the cerebro-spinal fluid in the human subject, in which investigation he was assisted by Professor Halliburton, and he gives us the results of his labours in an interesting form in the present volume.

A Handbook for Nurses. By J. K. Watson, M.D. Pp. xii. 413. London: The Scientific Press, Ld. 1899.

The object of this book is to combine in one volume anatomy, physiology, medicine, surgery, midwifery, and general nursing. To do this in a book of this size is an ambitious task. There is no doubt that it is absurd for a nurse to attempt to learn what she may want to know of medical subjects from the ordinary text-books. This handbook covers in each branch most of the principles, and will supply a want which has been often felt by nurses. The details of actual nursing have necessarily had to be put rather shortly; but in conjunction with some small text-book purely on this subject, a nurse will have quite sufficient literature for ordinary purposes.

About the actual facts in the book there is little to say. Dr. Watson seems to have avoided putting forward his own opinions, but to have gathered the most prevailing ones and to have stated them very clearly.

The diagrams and tables are well selected, and a very careful index has been compiled. Anyone who has attempted to reduce knowledge to a small space in print will understand that a great amount of care and patience has been bestowed here, and the result is a work which is sure to be much read.

An Introduction to Dermatology. By NORMAN WALKER, M.D. Pp. xvi., 247. Bristol: John Wright and Co. 1899.

Upon the whole an excellent work, well up-to-date, with a modest title. There are thirty coloured photogravure plates and thirty-four drawings. Some of the coloured plates are rather inartistic; but, with few marked exceptions, this condition seems almost inseparable from medical drawings. The plates have very little margin, but even this is better than having larger separate ones. Plate xxvi. seems to us the best, and the quality of the paper is better—smoother and not quite so "hog-skinned." We confess we do not like engravings from photos; the details, when magnified, compare very indifferently with true photographs, but these latter must doubtless have increased the cost of the work. The index is in clear, good print, full, and very free from mistakes. The text of the work is good, and contains few errors; but surely "numular" (p. 182) should read "nummular"; and on p. 16, sixth line from bottom, ʒviij. is evidently meant for ℥viij. Some of the remarks on diagnosis are pertinent: thus, "dermatology is not practical chemistry." The value of the thermometer is well stated.

That comprehensive subject, eczema, is cleverly dealt with, and the details of treatment, we hold, are about the best and the most sensible we have ever come across. On p. 183, speaking of the late manifestations of syphilis, we can thoroughly endorse the author's views, and also that "a small pigmented scar in the neighbourhood of the knee will clear up the nature of a very obscure eruption"; but we will go further, and say that the scar may even have lost its pigment and yet furnish most valuable aid.

We cannot understand the rationale for placing pediculosis under "hemorrhages"—the very slight bleeding seems to us to about measure the reason for doing so! Nor can we admit seborrhœa as a form of psoriasis—probably they are both parasitic, but this need not involve unity. However, the author is such a conscientious worker that we feel sure when he sees reason to alter his views he will do so; and as a second edition will certainly be called for, there will be an opportunity of correcting the more trivial errors we have pointed out.

The Throat and Nose and their Diseases. By LENNOX BROWNE. Fifth Edition. Pp. 967. London: Baillière, Tindall & Cox. 1899.

This, the fifth edition of a work which first appeared twenty-one years ago, more than maintains the increased dimensions which the author has found necessary with each edition as compared with its predecessors, an increase due not only to the almost daily expansion of laryngology, but also to the inclusion in its territory of the equally widening fields of rhinology. Mr. Browne has added detailed information on the normal anatomy, physiology, and histology, as well as on morbid anatomy and bacteriology, while the chapters on tonsillitis, diphtheria, tuberculosis, lupus, leprosy, malignant neoplasms, and on nervous diseases, have been largely re-written. Separate chapters, too, are accorded to diseases of the lingual tonsil, of the pharyngeal tonsil, and of the accessory nasal cavities.

The author has received valuable assistance from Mr. Mayo Collier on the subject of anatomy, and from the late Dr. Cagney on nervous diseases, while for the details of normal and morbid anatomy Mr. Wyatt Wingrave has been responsible, the text being freely illustrated by a series of excellent reproductions from his microscopical sections.

On several questions the author's views widely differ from those of the majority of experienced laryngologists. Thus, for instance, he dwells at some length on the subject of varix of the tongue and hypertrophy of the lingual tonsil, and states that "in no less than 438 cases, note was taken of a varying degree of venous congestion and fulness, which he generically terms lingual varix, in a total of 1547 patients suffering from diseases of the throat and nose" in his private practice. This varicose state was, of course, of very variable grade, and the term is used by the author to signify any excess of venous engorgement. We fear that the undue prominence given to these conditions which are so constantly present in the majority of individuals past middle life, without giving rise to any throat symptoms, is apt to induce inexperienced readers to employ the galvano-cautery with undesirable frequency and cause unnecessary suffering, notwithstanding the author's terse dismissal of the warning of other recent writers against the risks in this method of treatment.

Mr. Browne is not a strong believer in the value of the antitoxin treatment of diphtheria, and while pointing out possible disadvantages that attend its use, he says very little in support of the serum which in the experience of the vast majority of practitioners has yielded such excellent results.

The author modifies his former views on the question whether "benign growths occasionally assume a malignant and even a cancerous character by the irritation produced by attempts at removal," and with commendable fairness cites the

collected statistics which have rendered his own opinion so difficult to maintain. Mr. Browne recognises the work of other writers and practitioners in the subjects included in his treatise, while clearly and fully setting forth his own views. The section on diseases of the nasal accessory sinuses, clear and accurate as far as it goes, is rather meagre, and lacking in the detail one might fairly expect in this large volume.

Though this book is somewhat overweighted with general pathology having no special bearing on throat diseases, it will be valued especially as a work of reference, while the fulness and, in some sections, discursive character of the text will be appreciated by the advanced student.

The illustrations throughout the work, both coloured and in monochrome, are very numerous and beautiful, and the author's artistic skill cannot fail to give pleasure as well as valuable instruction to the reader; indeed, it may be truly said that the illustrations alone are worth the cost of the volume before us.

Cancer. By W. ROGER WILLIAMS. Pp. 189—396. **Sarcoma.** By W. ROGER WILLIAMS. Pp. 485—554. New York: William Wood and Company. 1898. Mr. Roger Williams has long been known for his patient research on the questions which are dealt with in these articles reprinted from vol. xvii. of the *Twentieth Century Practice of Medicine*. They deal with the statistical and pathological, rather than the clinical and surgical aspects of their respective subjects. Both works show a wide acquaintance with the literature of these diseases, and we do not know any more able and exhaustive treatises. The correlation of cancer and phthisis has been carefully worked out, and the author gives good reasons for his belief that most cancer patients are the surviving members of tuberculous families. The evidence pointing to the existence of a specific cancer microbe is regarded as altogether inconclusive. Reprints of such comprehensive articles deserve indexes.

Annual Report of the Smithsonian Institution, 1897. Washington: Government Printing Office. 1898. — The Royal Society is the nearest approach to anything we have in England to correspond to the Smithsonian Institution in America. The latter, however, is subsidised by the Government of the United States. The present volume is the annual report of the Institution for the year ending June 30th, 1897. The secretary's letter, presenting the report to Congress, at the commencement of the volume, is dated April 14th, 1898, nearly ten months after the end of the year, consequently some of the papers in the general appendix seem somewhat out of date. Presumably this delay in publishing is unavoidable; but it seems somewhat of a pity that such a valuable collection of papers as are here gathered together should not be given to the world sooner. After the secretary's report of the proceedings

of the Institution comes what is called the general appendix, the object of which—according to the introduction—is "to furnish brief accounts of scientific discovery in particular directions." It consists of papers by scientists from all parts of the world. The only two papers that can at all be called medical in character are the masterly address of Sir M. Foster, delivered before the British Association at Toronto, on "Recent Progress in Physiology," and an account of mescal intoxication by Havelock Ellis. Amongst the other papers of special interest are the lecture by Sir W. Crookes on "Diamonds," the essay by Abbott H. Thayer on "The Law which Underlies Protective Coloration," and "Letters from the Andrée Party;" but there is not a single paper in the volume which will not repay careful perusal.

Bibliographia Medica [Index Medicus]. Tome I., No. 1. Janvier, 1900. Paris: Institut de Bibliographie.—In its most earnest words the medical world should express its thankfulness for this publication, which is intended to take the place of the defunct *Index Medicus*. Those who had learned to value that compilation will be more than glad to have this excellent substitute, formed almost exactly on the old lines for the credit of which so much is due to the energetic and scientific labours of American bibliographers. We trust that M. Baudouin *et ses confrères* will meet with the support they deserve. The one thing that is lacking in this new publication is the consideration of the literature issued between the last record of the *Index Medicus* and the first number of its successor. But doubtless provision is being made for the supply of this at an early date. There must be no break in the indispensable work of the two publications.

Transactions of the Jenner Institute of Preventive Medicine (late *British* Institute of Preventive Medicine). Second Series. London: Macmillan & Company, Limited. 1899.—Through the munificence of Lord Iveagh, the Jenner Institute is now housed and endowed on a scale commensurate with the importance of the work undertaken. Amongst the records of the work of the year are papers upon the structure of bacteria, on the thermophilic and photogenic properties, and on the uses of bacteria in technical trade processes. Dr. Salter's paper on the pathogenicity of the pseudo-diphtheria bacillus and its relation to the Klebs-Loeffler organism is another link in the chain of evidence going to prove that the pseudo-organism is only a modified form of the virulent bacillus, and that the two varieties are readily convertible into one another. This being the case, the value of Neisser's diagnostic stain, dealt with by Dr. R. T. Hewlett, is not so great as was at first supposed, for Hoffmann's bacillus, which does not take on the characteristic staining reaction, may subsequently become as dangerous as the typical diphtheritic organism. We have not

ourselves found Neisser's test altogether trustworthy, many of the organisms ordinarily found in the mouth giving the characteristic granular staining. Valuable hints will be found in the "Laboratory Notes" on the staining of flagella and capsules, and on the methods of examining specimens for anthrax. It has been found in the laboratory that 25 per cent. of diphtheria cultures on blood-serum yield positive results within six or seven hours, a point of great practical importance in a disease in which early diagnosis is of the greatest importance. In a note on the commonly-reported failure to find the amœba coli in cases of tropical abscess of the liver, the direction is given to test when the walls of the abscess cavity begin to break down after drainage, for it is then that the amœba makes its appearance in the discharge. The *Transactions* are a valuable addition to bacteriological literature, and the profession is to be congratulated on the increased facilities for research afforded by the Institute.

The Thermal Waters of Bath. By GILBERT A. BANNATYNE, M.D. Pp. 87. Bristol: John Wright & Co. 1899.—This little book by Dr. Bannatyne is written with a single eye—it is intended for doctors. It explains the methods of treatment used in the bathing establishments in a thorough workmanlike fashion; it gives a list of what diseases may be cured or benefited by such treatment, and that, too, without describing the diseases; and it summarises the results which have been obtained at the Mineral Water Hospital in each disease. The book is carefully and scientifically written, and will be of great service to the medical profession.

The Diseases and Primary Tumours of the Thymus Gland. By H. D. ROLLESTON, M.D. Pp. 23. London: The Medical Publishing Company, Limited. [N.D.]—This essay is worthy of a better garb than a small undated pamphlet. It opens up a comparatively new field, and is of considerable importance in connection with the modern treatment of myxœdema and exophthalmic goitre. The author gives evidence in favour of the view that many of the morbid growths arising in the anterior mediastinum are due to the presence there of the remains of the thymus.

The Sanitation of British Troops in India. By E. CARRICK FREEMAN, Captain R.A.M.C. Pp. 106. London: The Rebman Publishing Company (Ltd.). 1899.—We can with confidence recommend this book to the notice of young medical officers going to India. It gives in a small compass the various dangers to health to which the British soldiers serving in that country are exposed, and the sanitary precautions that should be taken to maintain them in a high state of efficiency. The author clearly shows how diseases of the most serious nature may be disseminated through the gross ignorance of the native sweepers. The recommendations for the purification of a suspicious water

are sound and practical; and as the value of the Pasteur-Chamberland filter is fully established, its universal adoption in India is strongly recommended. Strict and capable supervision of all cooking arrangements is rightly advocated, and some excellent advice is given as to the precautions that should be taken to prevent the pollution of milk. The housing of troops in the tropics is of the first importance, and in reference to this there is much valuable information.

The Treatment of Lateral Curvature of the Spine. By BERNARD ROTH. Second Edition. Pp. viii., 141. London: H. K. Lewis. 1899.—The author of this work is well known as an advocate of the treatment of lateral curvature of the spine by "posture and exercise," and not by the so-called "spinal supports." There can be no doubt that he is quite right, and all modern surgeons will agree in the wish "that the publication of this little book will do something to check the unscientific and often disastrous treatment of lateral curvature of the spine by spinal supports and prolonged rest." An appendix containing a series of one thousand consecutive cases of lateral curvature treated by the author is given at the end of the book.

A Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools. Fourth Edition. Pp. 47. London: J. & A. Churchill. 1899.—The rules contained in this code, issued by The Medical Officers of Schools Association, are quite excellent, and their careful enforcement in all schools should reduce the danger of the introduction or spread of infectious disease to a minimum.

Clinical Lectures on Neurasthenia. By THOMAS D. SAVILL, M.D. Pp. xv., 144. London: Henry J. Glaisher. 1899.—The etiology, diagnosis, pathology, and treatment of neurasthenia are fully discussed in this volume, which consists of five lectures delivered in 1891, 1897, 1898. The disease is shortly defined as an irritable weakness of the nervous system, brought about by toxic blood states, malnutrition, fatigue, or emotional shock. The writing is lucid, and numerous cases are cited in support of the author's conclusions. The chief defect is that there is some amount of repetition, which, though no doubt useful in lectures, is quite unnecessary and irritating in a book. There is a good index, and a very complete bibliography is appended.

Constipation and its Modern Treatment. By GEORGE HERSCHELL, M.D. Second Edition. Pp. 91. London: Henry J. Glaisher. 1899.—This book deals with the treatment of obstinate or confirmed cases of constipation by other methods than the routine administration of drugs. It is well known that the drug treatment of chronic constipation may end in failure, larger and larger doses of medicine being required. The practitioner will find some useful advice here as to its treatment by douches, electricity, exercises, and by a method which is still

unfamiliar, and of which further experience is necessary before an opinion can be pronounced on its merits—namely, vibration applied to the abdominal viscera by a special apparatus. We recommend the book, as it contains many useful suggestions, and the directions are plain and marked by common sense.

The Pocket Case Book for District and Private Nurses. London: The Scientific Press, Limited. [N.D.].—Nurses will probably find this little book useful in which to note down details of cases, which are apt to escape the memory, and on which they have to report to the doctor in charge. It can be conveniently carried in the pocket, and will tend to increase of accuracy and method in observation on the nurse's part. The headings under which the notes are to be made are well selected.

Open-Air Treatment of Consumption—Seven Years' Experience in England. By JANE H WALKER, M.D. Pp. 15. London: J. & A. Churchill. 1899.—This reprint from the *Practitioner* contains a summary of seventy-eight cases, and the general result of these is said to be "encouraging, and presents features of hopefulness, even in advanced phthisis, which a few years ago would have seemed quite beyond the bounds of possibility."

Growing Children: their Clothes—and Deformity. By E. NOBLE SMITH. Pp. 23. London: Smith, Elder, & Co. 1899. —Contained in this small pamphlet are a few remarks on children's clothes, etc., most, if not all, having long been common knowledge.

Organothérapie ou Opothérapie. Par le Dr. C. HILLEMAND. Pp. 53. Paris: G. Steinheil. 1899.—The author has given us a useful review of the employment of animal extracts in medicine and of the results attained. Such great hopes were entertained when the first successes of this method were reported, that extracts have been prepared from almost every organ of the body. After analysing these attempts, Hillemand finds that only one, the thyroid treatment for myxœdema, has been established beyond all doubt, but there is a good deal of evidence in favour of several others, such as the supra-renal. We must congratulate the author on his clear and able discussion of a subject on which many exaggerated statements have been made.

Hygiene and Public Health. By B. ARTHUR WHITELEGGE, M.D. [Eighth Edition.] Pp. viii., 588. London: Cassell and Company, Limited. 1899.—This excellent manual has been previously noticed with approval in these pages. In the present edition the author has incorporated in the text some account of the more recent developments in many branches of hygiene. In particular, a summary of the important changes in administration introduced by the Vaccination Act of 1898 is given in chapter xii. This book is certainly one of the most concise and helpful of the smaller text-books on Public Health.

Lessons on Prescriptions and the Art of Prescribing. By W. HANDSEL GRIFFITHS, Ph.D. [Fourth] Edition, adapted to the British Pharmacopœia of 1898. Pp. x., 148. London: Macmillan and Co., Limited. 1899.—This useful little book should be in the hands of every medical student, inasmuch as it teaches what a large proportion never learn.

Merck's Manual of the Materia Medica. Pp. vi., 236. Darmstadt (Germany): E. Merck. 1899.—Part i. affords at a glance a descriptive survey, in one alphabetical series, of the entire Materia Medica of to-day. Part ii. contains a summary of therapeutic indications for the employment of remedies, arranged according to the pathological conditions to be combated. Part iii. presents a classification of medicaments in accordance with their physiological actions. The manual is designed to meet a need which every practitioner has often experienced, when the memory is treacherous. The publisher has laboured long and earnestly to render this little volume "a firm and faithful help to the practitioner in his daily round of duty."

Transactions of the Epidemiological Society of London. Vols. XVII., XVIII. London: Shaw & Sons. 1898-99.—These volumes contain much of prime importance to the student of public health. No less than five papers are concerned with the epidemic history of enteric fever, as exemplified in the experience of Munich, Clifton, Norwich, Nottingham, and the Netherlands. In vol. xviii. Dr. Ransome contributes a valuable paper on "The Prospect of Abolishing Tuberculosis," which is of much interest at the present time.

Reports and Papers of the American Public Health Association. Vol. XXIII. Concord: The Rumford Press. 1898. Vol. XXIV. Columbus: The Berlin Printing Company. 1898.—These two handsome volumes contain a large amount of interesting and valuable material, presented at the twenty-fifth and twenty-sixth annual meetings of the Association. Two papers of especial interest in the 1897 volume come from the laboratories of the Minnesota and Philadelphia Boards of Health, on the Diagnosis of Typhoid Fever by the Blood reaction, generally known as Widal's. In the volume for 1898 we note two papers on leprosy, a disease still maintaining a few foci in America, to which country the recent annexation of the Sandwich Islands forms an added danger, giving rise to the question, "Ought we to reopen the Leper Asylums?" The Etiology of Yellow Fever is also fully considered; and a paper on Anthrax in relation to tanneries points out a source of considerable risk to workers in certain trades to which all countries are exposed, but which is generally not fully recognised.

Transactions of the Medical Society of London. Vol. XXII. London: Harrison and Sons. 1899.—The work done by the Society during its one hundred and twenty-sixth session, under

the genial presidency of Mr. Edmund Owen, commences with the usual discourse, where the hope was expressed that "the spirit of tolerance and fraternity which Lettsom breathed into that little group of medical friends in the month of May, 1773, might continue to increase among our Fellows, not only for the session which is now beginning, but until time itself shall be no more." Dr. Allchin gives some considerations preliminary to the study of dyspepsia: he points out other considerations more recent than the historic turtle of June, 1775, when Lettsom feasted the young Society. Sir William Broadbent describes the conduct of the heart in the face of difficulties, and Dr. Robert Maguire endeavours to explain cases of death from functional nervous disease as being due to exhaustion of grey matter. The Lettsomian lectures on "Some Clinical Aspects of Granular Kidney," by Dr. Samuel West, occupy a considerable portion of the volume, and the annual oration by Alban Doran on "Shakespeare and the Medical Society" opened up a mine which is never exhausted.

Medico-Chirurgical Transactions. Vol. LXXXII. London: Longmans, Green and Co. 1899.—Together with the presidential address by Mr. Thomas Bryant, we have in this volume a number of very valuable papers read before the society during the past year and the annual financial statement, which shows that the society is in a very flourishing condition. The papers are fully reported and are, many of them, well illustrated, and will amply repay a careful perusal.

The Diagnosis and Treatment of Syphilis. By Tom Robinson, M.D. Second Edition. Pp. 138. London: J. & A. Churchill. 1900.—In 1887 we reviewed the first edition of this work, and as in the present edition no substantial alterations have been made, and no new subject discussed, extended comment on our part is unnecessary. We are told in the preface, where a curious and to us unintelligible distinction is drawn between the need and necessity of altering the work, that some corrections have been made. If the necessity for the production of a third edition should ever arise, we hope that the errors still remaining will receive attention. On p. 81 the word "thrombolic" occurs; on p. 85 "joint should be "joints"; on p. 112 "metacarpophalangeal" should be "metatarsophalangeal," and on p. 19 the definite article is left out before the word "vesicle." The expressions "occurs for," on p. 66, and "settled down and commenced," on p. 85, are, to say the least, inelegant. Again, the phrases "destroys fissures," on p. 106, "oxygen . . . is destroyed," on p. 118, and "process of slipping off the periosteum," on p. 107, are objectionable. The second sentence on p. 112 requires correction. We do not feel that this small treatise on syphilis has any special excellence which can justify us in recommending it strongly to students or practitioners.

Notes on Preparations for the Sick.

Many new food preparations have been devised of late. These foods are not only excellent aids to medicinal treatment, but are often the only treatment necessary or even possible. It has been pointed out recently by Mitchell Bruce that the practitioner must never lose control of the diet. It is not enough that he should permit different foods, he must employ them definitely as carefully-ordered means of treatment. And when he is deliberately planning treatment and reviewing his remedies in each case he should always think of food before he thinks of medicine, and give it a corresponding position of importance in his directions to the nurse or patient.

Dettweiler's dictum, "Ma cuisine c'est ma pharmacie," is the modern view as regards medication in phthisis, where systematic over-feeding has become the established rule, and in other diseases variations in the quantity of food, even to complete fasting, may be the best form of medication, but on the other hand "a great many persons are short of elimination, not of alimentation, when they are looking poorly. It is a fortunate circumstance that many so-called 'strengthening things' are really of low nutritive value and that others of them are very imperfectly assimilated." (Mitchell Bruce, *Principles of Treatment*, 1899, p. 201.)

It is unfortunate that many, and some of the most useful, food preparations are proprietary articles to which there usually attaches the stigma that they are prepared and sold chiefly for the benefit of the proprietor. This is no doubt a reason why so many of such food preparations, although taken largely by the patient under the influence of advertisement, are not commonly used by the physician as important means of treatment.

The numerous **Milk Preparations** now on the market are evidence of the now well-established belief that "milk from a cow with tuberculous disease of the udder is of all food products the most deadly. At whatever rate the danger from meat may be estimated, about that from tuberculous milk there can be only one opinion. The evidence is overwhelming." (Hillier, *Tuberculosis*, 1900, p. 103.)

"The risk which attaches to milk extends to all the products of milk in the preparation of which no process of heating is employed. Butter, skimmed milk, butter-milk, cream, and cheese may all contain tubercle bacilli if obtained from a contaminated milk." (*Ibid.*, p. 107.)

The process of Pasteurisation is now becoming recognised as the most satisfactory guarantee wherever the fresh milk is pre-

ferred to other manufactured products. "Pasteurisation, which is practically heating milk for some time at a temperature below actual boiling, and other modifications of this, such as heat under pressure, have the effect of sterilizing milk without depriving it of its butter-, cream-, and cheese-producing qualities." (*Ibid.*, p. 108.)

As long as tuberculosis exists amongst cattle the boiling, or the Pasteurisation, of cows milk is a precaution necessary in all kitchens and nurseries—in this way the danger from milk is capable of absolute control. Some dairymen give a guarantee that the tuberculin test shall be used periodically amongst all their cattle, but it is scarcely reasonable to expect that all dairymen shall act up to any such standard; it is quite open to question whether the Pasteurisation of milk and cream does not give a better security than can be obtained by any kind of selection of the animals.

The **process of peptonisation** of the milk usually comprises the boiling, and hence the sterilisation, of the product, but this is, of course, only one element in favour of artificial digestion when required.

One of the most satisfactory milk products is now sold as **Plasmon**—Nature's nutrient: soluble, digestible, natural albumen. (The Plasmon Syndicate, 56 Duke Street, W.) One teaspoonful of this powder contains the amount of nutriment equivalent to a quarter-pound of beef, or of about two pints of milk. It consists of the milk proteids in the form of a soluble dry powder—tasteless, odourless, and easily digested,—it is therefore a highly concentrated natural albumen, with no admixture of fat or farinaceous products. Merck, *Annual Report for 1899*, p. 126, describes it as "a mixture of albuminoids obtained from skimmed milk with a barely sufficient quantity of sodium bicarbonate to obtain complete solution. It is a slightly yellowish, odourless and tasteless gritty powder and soluble in warm water . . . Adults may be given up to 120.0 grm. (4 ounces) of plasmon per day either baked into bread or added to bouillon or broth without risk of discomfort." A concentrated powder of this kind, with no objectionable properties, may be taken in increasing doses, and should be of the greatest value in carrying out the process of over-feeding whenever this may be desirable. Plasmon is also sold in biscuits and chocolate tablets.

Another very nourishing food not new, but which (we are informed) has been recently modified and much improved, is sold by the Bovril Company as **Virol**. It contains the red bone marrow from ox-ribs, extracted by the glycerine process, and fresh eggs, of which the shells have been broken up and dissolved in lemon-juice, together with some malt extract. A modification of this, containing the yellow marrow of the long bones, is known as **Marrol**. Both these preparations have proved themselves to be valuable adjuncts to the diet table in many cases of

defective nutrition, and more especially in cases of pronounced anæmia.

The **Somatose** group (Bayer's Food Products) have been noticed by us on several occasions—September, 1895, March and September, 1899. A highly concentrated meat albumen in a soluble form is a very different thing from ordinary meat extracts; the latter have no actual value in the work of tissue building, whereas somatose powder contains about 80 per cent. of albumose, and is in the highest degree capable of tissue renovation, with very little trouble to the organism by way of digestion and assimilation.—(The British Somatose Company, London, E.C.)

Another food—an insoluble one, not a milk product—is sold under the designation **Tropon** (Troponwerke: Mulheim am Rhein. Arthur Reiner & Co., Old Broad Street, E.C.). This substance is a dry powder, with little taste or odour. It is absolutely insoluble in water, and therefore contains no soluble albumen. After standing in water for many hours the powder remains unchanged at the bottom of the test tube, and the supernatent fluid gives no precipitate with heat or nitric acid. The powder is described as "albumen in its purest and most digestible form." This apparently means that it can be easily digested with pepsin and hydrochloric acid. It is not hygroscopic: it therefore will keep well, and it may be utilised in many ways, either by itself as a food or to increase the nutritive value of made dishes and fluid drinks. A pamphlet by Professor Finkler professes to give an exhaustive account of tropon as a food for invalids, from an experience of one hundred cases, and from it we learn that "Tropon will agree with everybody. It does not present any drawback either chemical or mechanical, for digestion or absorption. . . . We have laid great stress on administering tropon to invalids without their knowledge; this can be done by mixing it with soup, porridge, and most advantageously of all, with chocolate and cocoa. . . . The invalid must be convinced that albumen is not a medicine which contains a great amount of strength-producing properties in a very small bulk. He must be told that albumen is a food, which, however concentrated it may be, must be taken in considerable quantities and for some time, to produce the desired effects." It has been given in many diseases in quantities amounting to an average of 20 grams a day, and has given very good results. We are not informed from whence this food is derived, nor how it is prepared; microscopic examination throws no light on its origin, as we could not identify either muscle fibres or starch granules. One pound is said to be equivalent in nourishing value to five pounds of beef (without fat or bone) or from 85 to 100 eggs.

MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

March 14th, 1900.

Mr. W. H. HARSANT, President, in the Chair.

Dr. F. H. EDGEWORTH showed a case of acromegaly. The patient, a female, had the usual enlargement of the hands and feet, mainly in the transverse diameter. A radiograph of the hand was shown. The enlargement was chiefly of the soft parts, the bones being but slightly increased in size. She had come complaining of numbness of her hands and arms. This made it difficult for her to dress. The symptoms had improved under treatment with tabloids of thyroid and pituitary gland substance.

Dr. J. MICHELL CLARKE read a paper on "Two Cases of Aneurysm of the Thoracic, and one of the Abdominal, Aorta, with specimens," and showed a patient with thoracic aneurysm. Case I. was that of a porter. He gave no history of syphilis. A few days before coming to hospital he had been suddenly seized with dyspnœa and palpitation when going up a hill. There was œdema of the feet. The pulse was 100, but not that of aortic regurgitation. The apex beat was two inches outside the nipple. The cardiac dulness extended one inch to the right of the sternum, and upwards to the first intercostal space on the left side of that bone. There was a remarkably distinct thrill to be felt; it was continuous and extended into the carotid and subclavian areas. A loud murmur was heard best in the third left space, and conducted down the sternum. It could be heard at a distance of eight inches from the chest. The liver was enlarged, and showed true pulsation. As the weakness of the heart increased the thrill and murmur became less distinct, and the right ventricle dilated. There was some degree of cyanosis during the last three days of life. The urine had a specific gravity of 1022, and was very scanty. Anasarca increased towards the end, and ascites and pleuritic effusions developed. The *post mortem* showed a sacculated aneurysm of the root of the aorta on the right side. The wall of the aneurysm, which was thin, had perforated the pulmonary artery just above a cusp of the valve. The pulmonary artery was small, the conus arteriosus enlarged. Both ventricles were hypertrophied. Dr. Clarke remarked that varicose-aneurysm of the aorta had been diagnosed from the first. The difficulty had been in deciding where the perforation was. Communications with the *vena cava* were generally developed suddenly and associated with great dyspnœa. The position of the murmur and thrill, and the dulness to the left of the sternum, pointed to a communication with the pulmonary artery. Walshe says the communication is slowly established in some cases. Sir William Gairdner had published a case very similar to the speaker's. In both Gairdner's and his own cases there had been a striking degree of mental complacency in the patients. Case II.—This patient had felt quite well until three days before admission to the hospital. Then he had suddenly felt a tickling in the throat, and coughed up some blood. At the time he was quietly resting. This was twice repeated. He had pain in the

left shoulder for some weeks previously to admission, and for some hours a pain over the heart. On admission, his sputum was bright red, viscid, and frothy. There was dulness behind the manubrium, and extending thence over the left apex. At this apex there was an absence of breath sounds, but with respiratory movement a rough sound like that of sawing wood was heard there. Also the second heart sound was accentuated. It was concluded that an aneurysm of the transverse arch of the aorta had by pressure caused collapse of the left apex of the lung. The patient died suddenly, coughing up a little blood. *Post mortem*, a large secondary cavity, bounded by connective tissue and fibrin, was found to have been excavated in the lung tissue. Case III. was one of abdominal aneurysm. The patient, a man, complained of paroxysmal pain in the right side of the abdomen. Often the attacks were of agonizing intensity, and in them the patient lay coiled up on the affected side with his hands over the painful region. There was tenderness at McBurney's point. Sometimes the pain passed to the testicle. The abdominal wall was very rigid. Slight hæmaturia sometimes followed the attacks. At the *post mortem* an aneurysm of the abdominal aorta was found to have eroded the vertebræ from the twelfth dorsal to the second lumbar, and there had been free extravasation of blood behind the colon. Dr. Clarke remarked on the difficulty in the diagnosis in this case. Iodide of potassium had relieved the symptoms for a time.—Dr. WALDO considered that interstitial nephritis was an important factor in the causation of an aneurysm, as Dr. West had recently pointed out, as well as syphilis, and certain kinds of work.—Dr. GROVES described a case of aneurysm he had treated in which there had been continuous pain in the back for eighteen months. There had been dulness to the right of the sternum, and also at the left base below the angle of the scapula. Dyspnœa became a marked symptom. *Post mortem*, the arch of the aorta was found to be the size of a closed fist and lined with firm clot. A thin-walled portion of the sac pressed on the trachea. In the descending aorta was a second aneurysm, which had eroded the vertebræ extensively and ruptured into the pleura. Another case was mentioned in which a man had similar pain in the left side of the chest for a long period, the pain having first started when the man was at work. Damages had been claimed for this reason. The speaker regarded the case as one of aneurysm.—Dr. WATSON WILLIAMS drew attention to the absence of paralysis of the vocal cord in Dr. Clarke's first case. He thought that it would be almost impossible for an uncomplicated aneurysm to give such marked symptoms without producing also some paresis of the vocal cord. He alluded to a case he had seen which was supposed to be one of recurring laryngitis from exposure, but in which paralysis of the vocal cord led him to diagnose aneurysm even in the absence of a swelling or pulsation. The man had subsequently died from sudden hæmoptysis.—Dr. CAVE asked if a bruit had been heard on auscultation over the lumbar or dorsal region of the spine, as this sign often clinched the diagnosis of aneurysm of the abdominal or thoracic aorta.—Dr. STACK alluded to the use of the X-ray screen in the diagnosis of aneurysm. The method had been successfully used in five or six cases at the Bristol Royal Infirmary. In one case the diagnosis was made with the aid of the screen when no ordinary signs of aneurysm were present.—Dr. EDGEWORTH mentioned that he had found the administration of nitroglycerine vastly increase pain in the left arm of a patient who died later from aneursym, and suggested the possibility of the drug helping in the diagnosis of doubtful cases.—Dr. WALDO alluded to the relief of

the pain of aneurysm he had obtained by giving the same drug.—Dr. MARKHAM SKERRITT would have naturally expected that nitro-glycerine and the nitrites would relieve rather than aggravate the symptoms of aneurysm, for it could not possibly act directly on the sac wall, but only peripherally on the vessels. He also pointed out that the existence of a communication between the two sides of the heart did not necessarily lead to cyanosis, as the blood of the two sides might not mix. In a case of patency of the foramen ovale, it is the concomitant stenosis of the pulmonary artery which leads to cyanosis.—Dr. MICHELL CLARKE, in reply, said his cases did not bear out the view that interstitial nephritis was a common cause of aneurysm, and other cases he had seen also failed to support that view. The clinical symptoms in his first case were out of all proportion to the size of the aneurysm, and were due to the communication with the pulmonary artery.

Dr. F. H. EDGEWORTH read "Notes on a New Method of Treating Asthma." The treatment he wished to refer to was that by the injection of anti-diphtheritic serum. The case of a man of 24, who had been asthmatic six years, was instanced. Ten injections of 10 c.c. of Roux's serum was said to have completely cured the patient. A letter the speaker had received from Dr. Aikman, of Guernsey, who had treated many cases in this way, was quoted. Dr. Aikman had injected 500 units each time, the three first being given at intervals of two days. Improvement usually began after three injections. Some patients who had been asthmatic nearly all their lives had been reported cured. Dr. Edgeworth had followed Dr. Aikman's method. No skin rashes had resulted. There were two great classes of asthma—the bronchitic and the non-bronchitic. The serum had no curative effect in the non-bronchitic cases. In the bronchitic it caused watery expectoration for a few weeks, then subsidence, acting apparently like alkalies, and its efficiency depended upon its power of curing the bronchitis which was present. He had used it in eleven cases. In three there was no bronchitis, and the serum had no curative effect. In the remaining eight, three were cured, three relieved, and two unaffected.—Dr. WATSON WILLIAMS remarked that the serum had been recommended in ozœna and chronic rhinitis, and had produced temporary benefit. It was astonishing how many drugs relieved neuroses! Rhinologists claimed to have cured a great number of cases of asthma. The majority of cases relapsed again sooner or later. He had tried the serum in atrophic rhinitis, and had been much disappointed with the results. He felt very doubtful as to how long the asthma cases would remain cured.—Dr. EDGEWORTH replied that the serum certainly did cure the bronchitis. Of course, if the bronchitis recurred the asthma would.

Mr. J. TAYLOR read a paper on "The X-ray History of a Fracture." Lantern slides were shown, reproduced from skiagrams. A report of this case will appear in the next issue of the *Journal*.

Dr. C. A. HAYMAN read a paper on "The Causes and Treatment of Toothache." The two most common causes of toothache were stated to be: (*a*) Exposure of the pulp or nerve, and (*b*) dental abscess. In the first variety the dentine becomes affected with caries through the existence of a hole or flaw in the enamel. Through the aperture fluids enter the dentine and gradually permeate it. Softening of the dentine by acid fermentation ensues, and in course of time, when biting some hard substance, the enamel gives way. The softened dentine then becomes pressed upon the pulp of the tooth, causing great pain. In such

a case the indications were to dry the cavity and relieve the pressure by removing all food *débris* and broken enamel. This should be done by working carefully with excavators round the edge of the cavity, avoiding the centre of the tooth. Thus the pressure and pain would be relieved. Usually when the cavity had been quite cleaned a small bleeding point would be seen, and that was the exposed pulp. The exposure, if small, should be capped with a small disc of writing-paper having a paste of iodoform, carbolic acid, and glycerine on the side facing the dentine. This will protect from pressure, and encourage the deposition of secondary dentine. Finally, the tooth can be filled in the usual way, and will then last for years. If the exposure is too large for capping, the pulp should be destroyed, the nerve canal disinfected thoroughly and filled with guttapercha points softened by chloroform, and then the cavity can be filled in the ordinary way. In the second variety, the abscess was caused by the death and decomposition of the nerve or pulp of the tooth. For a time the nerve channels may form a natural drain, but later they become blocked, and then the pus forces its way out at the apex of the fang and infects the surrounding tissues. Pain, heat, redness, and swelling of the face then ensue. In treating such cases the pulp chambers and nerve canals must be thoroughly opened and cleansed with nerve extractors and drills, then filled as described before. A gold cap can then be fixed on the tooth. By adopting such measures as the above, it was quite possible to save teeth though they were badly decayed and had even formed abscesses. If the dental periosteum of a tooth became detached, the pulp also having suppurated, it was past conservative treatment, and should be extracted. Practitioners were recommended to keep in their possession a few dental instruments as a first-aid equipment. The paper was illustrated by the aid of lantern slides, and instruments and sections of teeth were shown.

April 11th, 1900.

Mr. W. H. HARSANT, President, in the Chair.

Dr. H. WALDO showed a male patient, aged 19, who had a large area of brownish pigmented skin in the left posterior hip region. The patient complained of loss of energy in mind and body. He thought the pigmentation had existed three or four years. For some weeks he had been troubled with indigestion and nausea, and also greatly with flatulence. Studying for an examination had aggravated his symptoms. The genitals were also discoloured in a similar way, but pigmentation had not been observed in the mouth. There was giddiness on first getting up in the morning. The heart-sounds were feeble, the pulse soft. Tabloids of supra-renal extract had been given and also diastol. Some improvement had resulted from the treatment. Dr. Waldo thought the case resembled one of Addison's disease more than anything. It was recognised that the pigmentation in that disease might appear years before other symptoms. Dr. Waldo also showed a case of urticaria pigmentosa. There was no pigmentation in the mouth. The disease had begun when the child was between three and four years of age in this case. Often, in others, it began in the first six months of life. It differed from ordinary urticaria in its permanency. The eruption might be elevated or not. It often continued to the age of puberty. Iodide of potasium had been found to relieve the itching in this case. In another case cold morning sponging had been found beneficial.—Dr. G. PARKER thought, in the first case, that some

thickening of the skin existed where the pigmentation was seen, and that the growth of hair was excessive, suggesting, in the absence of any history, that it was a birth-mark. He alluded to the association of pigmentation, dyspepsia, and flatulence which had been remarked upon by Rolleston.—Dr. WATSON WILLIAMS agreed with the diagnosis of Addison's disease, and thought all the classical symptoms should not be waited for before making a diagnosis. He alluded to a case he had seen in which there had been present vomiting and dicrotism of the pulse, followed later by slight pigmentation. That case had ended fatally. He thought some cases were not recognised because the pigmentation was slight in degree. He mentioned also the case of a boy of fourteen with urticaria pigmentosa he had seen. When the boy became heated the irritation increased.—Dr. WALDO replied that he attached as much importance to the pigmentation of the genitalia as to that in the hip region.

Dr. A. J. HARRISON showed two children affected with favus. The yellow crusts had disappeared after a few applications of boracic ointment. Very few spores were to be found in the hairs, but the scutula teemed with them.

Dr. WALTER SWAYNE showed a specimen of ovarian tumour, and read notes on two cases of hysterectomy for fibroids with intra-peritoneal treatment of the pedicle. (For the notes on the hysterectomy cases, see p. 123.) The ovarian tumour had been removed from a multiparous woman, aged 39. It had extended upwards to midway between the umbilicus and ensiform cartilage. The patient had a cough, swelling of the legs, dulness at the bases of the lungs, and seemed to be in an almost hopeless condition. Dark brown fluid was withdrawn from the cyst after exposure. The point of greatest interest was the extremely rotten state of the cyst wall. It would not hold forceps. Numerous adhesions had to be separated and the vermiform appendix to be removed. Many pieces of the tumour had to be separately removed from amidst the intestines. The pedicle had been secured by triple interlocking ligatures. A pint and a half of fluid was left in the abdomen to combat the shock. Recovery ensued, the patient being discharged within a month.—Dr. AUST LAWRENCE remarked on the difficulty of explaining the rottenness of the walls of the ovarian cyst which had been shown, as there were numerous adhesions, and the pedicle, which was thick, had not been twisted. Speaking of fibroids, he had seen nearly a thousand cases in twenty-five years, and in not more than 5 per cent. of these would radical surgical treatment have been justified; 40 per cent. of the remainder would have been rendered very comfortable by the help of minor surgery and medicine. Enucleation was dangerous, for the interference easily caused necrosis. Hospital patients required operations when the wealthy did not. When fibroids were small, vaginal hysterectomy would be the operation of choice; but it was not justifiable to operate in the early stage of the disease, except under special circumstances, because no one could tell if the disease would progress or not. The patient must be watched. Keith had given up operating on fibroids, and used Apostoli's electrical treatment. He knew of ten cases in which women with fibroids had become pregnant, and had had no trouble in parturition. Some women bore loss of blood much better than others. He had known women lose blood three weeks out of every four and yet remain well. Pressure symptoms in some cases might be relieved by the alteration of the position of the uterus.—Mr. ROGER WILLIAMS remarked that the Registrar-General's reports did not show what proportion of women

in the general population had myoma, nor what proportion died from the disease. He estimated, from a consideration of the St. Bartholomew's Hospital *post-mortem* records and other data, that 25 per cent. of women over thirty-five had myomata. As there were about 4,000,000 women of such age in the country, this meant that about 1,000,000 women suffer from the affection. Taking the Registrar-General's returns under the heading of diseases of the uterus and vagina, and eliminating deaths from cancer and parturition, it appeared that about 500 women died from myoma per annum, and 500 out of 1,000,000 is equivalent to 1 in 2,000, and he believed that was the most correct statement available with regard to the mortality of the disease. These numbers indicated how rarely operation was likely to be called for in the affection. From ovarian tumours a much larger proportion of women died. —Dr. NEWNHAM had been surprised not to hear that a twisted pedicle had been the cause of the rottenness of the cyst wall in Dr. Swayne's ovarian case. He had had recently two cases in which twisted pedicles had caused extensive adhesions.—The PRESIDENT thought that there was a tendency to operate on fibroids too frequently. Oöphorectomy would not be much more heard of as a remedy, and Apostoli's method would share the same fate. It seemed to him also that in the cases not amenable to operation by the vaginal route the abdominal operation with intra-peritoneal treatment of the pedicle would become the one most frequently selected.—Dr. WALTER SWAYNE replied that he had no faith in Apostoli's treatment. It seemed to stop hemorrhage in some cases The size of the tumour alone did not afford any indication. as to the necessity of operation.

Dr. NEWNHAM read notes on two successful cases of operation for imperforate hymen with retained menses. The first, that of a girl of 18, had been seen for supposed retention of urine. There was an abdominal tumour, and the hymen was tense, and blueish in colour. Thick treacly fluid was evacuated by incision. The second case was very similar, and had been treated in the same way. Both patients had uneventful recoveries.—Dr. JAMES SWAIN mentioned a case of the kind he had seen in which the tumour reached nearly to the umbilicus, but in which there had been absolutely no vagina present. He had made a transverse incision and dissected upwards between the bladder and rectum. The bladder was wounded twice and the wounds sutured. The distended uterus was opened at a later date through the newly-formed vaginal canal after the bladder wounds had closed.— Dr. AUST LAWRENCE recollected having seen a case tapped through the rectum. The contents had putrefied in consequence. In another case, occlusion of the canal had followed sloughing of the cervix uteri. He had had also a case of double uterus in which on one side menstruation was normal, but on the other there was retention of the menses. The distended portion of the uterus had been tapped with a small trochar and washed out. This patient died from rupture of the Fallopian tube on the affected side.

Dr. STACK read a paper on a case of leontiasis ossia, and showed the skull and other bones he had obtained at the *post mortem* and photographs of the case. The patient, a female, was 21 years of age at the time of death. Her death had occurred suddenly from asphyxia. For ten years, off and on, the patient had been under observation at the Infirmary. Her mother had first noticed the size of the head becoming abnormal when the patient was seven years old. As the size of the head increased the patient used to support it against the wall or on the table. The pharynx had been pushed forward. The

femora and tibiæ became bent, and all the bones were affected in some degree. Parts of the skull were nearly three inches thick; but the intra-cranial cavity was almost normal, and the brain and pituitary body were normal. There was a naso-pharyngeal sarcoma present containing myeloid cells. The deformity of the long bones and pelvis was due to the increase of the weight of the head. There was no definite evidence of rachitis nor of syphilis, though the latter could not be excluded.—Mr. ROGER WILLIAMS remarked on the excellence of the specimens shown, and alluded to one of Murchison's he had seen. He considered leontiasis the best heading under which to place them in the present state of knowledge. The enlargement seemed to centre in the jaws at first, and the dacryops from which this patient had suffered suggested that the upper jaws had been early affected. Discussing the ætiology, he considered cases of this kind were possibly due to nerve lesions near the base of the brain, and that syphilis might be a factor in the causation.—Mr. MACKIE asked if atheromatous changes in the blood-vessels had been found, as they had been conspicuous in a case published by Dr. Young.—Dr. STACK replied that the aorta and kidneys had been found healthy.

Mr. ACKLAND showed some new instruments he had devised for the treatment of antral suppuration. These included a fluted perforator, which easily cuts its way into the antrum through the alveolar border of the jaw; hollow gilded screws to be fixed in the canal made by the perforator, and provided with a cap, which could be easily removed, to prevent the entrance of food; a two-way nozzle to fit into the hollow screw, and which the patient can adjust himself, and with it syringe out the cavites; and an instrument for measuring the length of the canal leading into the antrum. With these instruments the perforation can be made, and the screw drainage-tube introduced under one administration of gas.—Dr. WATSON WILLIAMS remarked that antral disease was commoner than is generally supposed. The majority of rhinologists believed in trying these less radical methods of treatment first. He thought Mr. Ackland's method likely to come into very general use.—Dr. JAMES SWAIN said he had sometimes passed a drainage-tube in through the tooth socket and out through the nose. He considered Mr. Ackland's method a very excellent one.

J. LACY FIRTH, *Reporter.*
G. MUNRO SMITH, *Hon. Sec.*

May 9th, 1900.

Mr. W. H. HARSANT, President, in the Chair.

The proceedings opened with the presentation of a testimonial to Mr. L. M. Griffiths. (See pp. 97—103.)

Mr. A. CARR showed a soldier invalided from South Africa, who was shot in both arm and chest at Paardeberg on February 18th.

Dr. NEWNHAM exhibited a uterine myoma he had removed by the intra-peritoneal method.

Dr. THEODORE FISHER read notes on some cases of vascular lesions in children. In four of these thrombosis of the cerebral veins was present; in two others there was intra-cerebral hemorrhage. The thrombosis occurred as a complication of acute diarrhœa, broncho-pneumonia, noma, and ascites from hepatic cirrhosis.

Dr. EDGEWORTH read a paper on some cases of Acroparæsthesia which had come under his care. They occurred in women between forty and fifty, and the chief symptoms were sensations of tingling and anæsthesia in the arms and hands with occasional cramp-like pains. There were no signs of vaso-motor disturbance. Nitro-glycerine and bromides were found useful.

Drs. STACK, MICHELL CLARKE, and CAVE remarked on the cases.

Mr. A. W. PRICHARD read a paper on three cases of abdominal surgery presenting somewhat unusual features. The first was a case of perforated gastric ulcer, where the perforation healed, although it could not be stitched up. In the second, intestinal obstruction followed old appendicitis, and was relieved by enterectomy. In the third (a solid ovarian tumour) intestinal obstruction followed the operation of removal from adhesion of the intestine to the abdominal wound. This was cured by operation.

J. LACY FIRTH, *Reporter.*
MUNRO SMITH, *Secretary pro tem.*

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the List in March:

	May 31st, 1900.
L. M. Griffiths (1)	4 volumes.
Manchester Medical Society (2)	1 volume.
Trafford Mitchell, M.D. (3)	6 volumes.
George Parker, M.D. (4)	7 ,,
Arthur B. Prowse, M.D. (5)	21 ,,
W. H. Spencer, M.D. (6)	1 volume.
J. Taylor (7)	1 ,,

Unbound periodicals have been received from the Editor of *The Cincinnati Lancet-Clinic*, Messrs. Macmillan and Co., Dr. Arthur B. Prowse, and Dr. Shingleton Smith.

THIRTY-SIXTH LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Barker, L. F. ... *The Nervous System* 1899
Bertram de Saint-Germain. *Des Manifestations de la Vie et de l'Intelligence* (1) 1848
Boorde, A. ... ... *A Dyetary of Helth, 1568* 1870
Brandt, G. H. and J. E. *Royat-Medical Guide* ... ... (5) 4th Ed. [N.D.]
Burghard, W. W. Cheyne and F. F. *A Manual of Surgical Treatment.* Part III. 1900

Buxton, D. W. ... *Anæsthetics* ... ... 3rd Ed. 1900
Catalogue of Books in the Library of the Bristol Naturalists' Society ... (5) 1888
Chapman, C. W. *Heart Disease in Childhood and Youth* ... ...[1900]
Cheadle, W. B. *Lectures on the Practice of Medicine*... 1900
Cheyne and F. F. Burghard, W. W. *A Manual of Surgical Treatment.* Part III. 1900
Christison, Sir Robert, The Life of. 2 vols. 1885-86
Coats, J. ... ... *Manual of Pathology.* 4th Ed. (Revised by L. R. Sutherland) 1900
Cruveilhier, J. *Traité d'Anatomie pathologique générale.* Tome I. (1) 1849
Cyclopædia of Names, The Century ... ...[1894]
Davies, H.... ... *The Young Wife's Guide* ... ... (4) 1852
Dührssen, A. ... *A Manual of Gynæcological Practice.* (Tr. by J. W. Taylor and F. Edge) ... ... 2nd Ed. 1900
Emond, E.... ... *Le Mont-Dore* ... ... 4^e. Ed. 1900
Encyclopædia Medica. (Ed. by C. Watson) Vol. III. 1900
Fenwick, S. and W. S. *Ulcer of the Stomach and Duodenum* 1900
"Festschrift" in Honor of Abraham Jacobi 1900
Gould, G. M. ... *A Pocket Medical Dictionary* ... ... 4th Ed. 1900
Grant, W.... ... *On the Nature, Rise, and Progress of Fevers in London* (1) 1771
Hall, Mrs. Charlotte *Memoirs of Marshall Hall, M.D.* 1861
Hartridge, G. ... *Golden Rules of Ophthalmic Practice* ... ... [1900]
Hawkins-Ambler, G. A. *Gynæcological Nursing* 1900
Hillier, A.... ... *Tuberculosis* 1900
Huxley, T. H. ... *Lessons in Elementary Physiology* ... ... [5th Ed.] 1900
Katalog over det Norske Mediciniske Selskabs Bibliotek—Tillægs No. II. ... 1900
[**Keating, J. M.** (Ed.)] *Cyclopædia of the Diseases of Children.* Vol. V. 1899
Kirkes, W. S. *Hand-Book of Physiology.* 16th Ed., by W. D. Halliburton 1900
Labat, A. .. ... *Climat et Eaux minérales d'Angleterre* 1900
Letchworth, W. P. *Care and Treatment of Epileptics* 1900
Lucas, J. J. S. ... *Nordrach at Home* ... ... [N.D.]
Maylard, A. E.... *The Student's Handbook of the Surgery of the Alimentary Canal*... 1900
Mayo, H. ... ... *Outlines of Human Physiology*... ... ... (4) 4th Ed. 1837
Mégret, A. *Étude de Mensurations sur l'Homme préhistorique* ... ... (7) 1894
Muir and J. Ritchie, R. *Manual of Bacteriology* ... ... 2nd Ed. 1899
Owen, Rev. R. ... *The Life of Richard Owen.* 2 vols. ... ... 2nd Ed. 1895
Paget, S. ... ... *Experiments on Animals* 1900
Pharmacopœia of the Leicester Infirmary ... ... (5) 1897
Phillips, R. ... *Translation of the Pharmacopœia of the Royal College of Physicians, London,* 1836 ... ... (4) 2nd Ed. 1837
Pollack, B. ... *Methods of Staining the Nervous System.* (Tr. from 2nd German Edition by W. R. Jack) 1899
Ritchie, R. Muir and J. *Manual of Bacteriology*... .. .. 2nd Ed. 1899
Robinson, T. ... *The Diagnosis and Treatment of Syphilis* ... 2nd Ed. 1900
,, *The Diagnosis and Treatment of Eczema* ... 2nd Ed. 1900
Robson, A. W. M *Diseases of the Gall-Bladder and Bile-Ducts* ... 2nd Ed. 1900
Ryan, M. ... .. *A Manual of Midwifery* ... ...(4) 4th Ed. 1841
Smith, E. N. .. *Paralytic Deformities of the Lower Extremities* 1900
Spencer, W. H. *Consumption* ... ... (6) 1900
Sternberg, M. ... *Acromegaly* (Tr. by F. R. B. Atkinson) ... ...[1899]

Symes, J. O. ... *The Bacteriology of Every-Day Practice* 1900
Tirard, N. ... ... *Medical Treatment* 1900
Wallace, J. S. ... *Decay in Teeth* 1900

TRANSACTIONS, REPORTS, JOURNALS, &c.

American Dermatological Association, Transactions of the, 1899 ... 1900
American Journal of Obstetrics, The ... ...Vol. XL. 1899
American Laryngological Association, Transactions of the, 1899 ... 1900
American Pediatric Society, Transactions of the ... ... Vol. XI. 1899
American Public Health Association, Reports and Papers of the Vol. XXV. 1900
Archives of Pediatrics, The ... ... Vol. XVI. 1899
Boston Medical and Surgical Journal, The ... ... Vol. CXLI. 1899
Bristol Medico-Chirurgical Journal, The ... ... Vol. XVII. 1899
Bristol Port Sanitary District--Annual Report of the Medical Officers of Health for 1899 1900
British Journal of Dermatology, The ... ... Vol. XI. 1899
Brooklyn Medical Journal, The ... ... Vol. XIII. 1899
Centralblatt für Gynäkologie 1899
College of Physicians of Philadelphia, Transactions of the 3rd Ser., Vol. XXI. 1899
Écho médical du Nord, L' 1899
English Catalogue of Books, The, for 1899 1900
Gazette des Hôpitaux 1899
Gazette des Hôpitaux de Toulouse 1899
Hospital—
St. Thomas's Hospital Reports ... ...Vol. XXVII. 1899
Journal d'Hygiène ... ... Vol. XXIV. 1899
Journal de Neurologie ... ... Tome IV. 1899
Journal of Cutaneous and Genito-Urinary Diseases ... Vol. XVII. [1899]
Journal of Mental Science, The ... ... Vol. XLV. 1899
Journal of Nervous and Mental Disease, The ... ... Vol. XXVI. 1899
Liverpool Medico-Chirurgical Journal, The ... ... Vol. XIX. 1899
Llangyfelach Rural District Council—Annual Report on the Llandilo-Talybont Division. Six vols. ... ... (3) 1894–99
Local Government Board, Second Annual Report of the ... ... (1) 1873
Medical Annual, The 1900
Medical Chronicle, The ... ... 3rd Ser., Vol. II. 1899-1900
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Newquay, Eleventh Annual Report on the Health and Sanitary Condition of 1899
Nord médical, Le ... ...Tome V. 1899
Nursing Directory, Burdett's Official 1900
Philadelphia County Medical Society, Proceedings of the Vols. XVIII., XIX., 1897–98
Preparations], Annual Report [on New Medicinal ... ... (5) 1894–97; 1899
Progrès médical, Le ... ... 3e. Sér., Tomes IX., X. 1899
Progressive Medicine ... ... 4 vols. 1899
Recueil d'Ophtalmolgie ... ... (2) 1889
Revue de Thérapeutique médico-chirurgicale 1899
Royal Red Book, Webster's ... ... (4) 1878

St. Louis Medical and Surgical Journal, The Vols. LXXVI., LXXVII. 1899
Treatment ... ... Vol. III. 1900
Wiener klinische Wochenschrift 1899

Obituary.

MAJOR THOMAS ALFRED PERRY MARSH, R.A.M.C., whose death was reported at Deelfontein Hospital on 22nd May, 1900, was the youngest son of the late Captain Henry Godfrey Marsh, J.P., of Winterbourne Park, Gloucestershire.

He was born at Blackwood, Mon., on the 23rd February, 1856, and received his professional education at University College, Bristol, and St. George's Hospital, London, and he was admitted a member of the Royal College of Surgeons, England, 1881; Lic. Royal College of Physicians, London, 1882; D.P.H., R.C.P.S., London, 1892. Major Marsh was elected a Fellow of the Royal Institute of Public Health in 1899.

At the University College, Bristol, he had a brilliant career, where he was the first and third year's Prizeman, Clark Scholar in Surgery, Sanders Scholar in Medicine, and Haberfield Prizeman in Medicine, Surgery, and Obstetrics. He held for a short time the house-surgeoncy at Weston-super-Mare Hospital. In July, 1882, he passed high in the list as probationary surgeon to Netley, and became Surgeon-Major in 1894.

Major Marsh saw active service in the Burmese Expedition in 1885 to 1887, when he was in medical charge of a battery of mountain artillery and was present in several engagements. For this campaign Major Marsh had the medal with clasp.

He was ordered to South Africa in October, 1899, in special charge of No. 3 Stationary Field Hospital, of which he himself personally superintended the equipment, and sailed for South Africa in the "Kildonan Castle" on 4th of November, 1899. His hospital was subsequently stationed at the important junction of De Aar, where at the time of his death he was in command, and also P.M.O. for this important camp and district, and at this place his duties became at once very onerous, and, as he described it, his hospital grew as requirements demanded from 100 to 500 beds, and before he could get accommodation complete he was inundated with the wounded from Graspan, Modder River, and Magersfontein, all of which actions were fought within a short time of his arrival at De Aar. As Lord Roberts invaded the Free State his hospital became crowded with enteric fever, and in one of his late letters home he said he then had 200 cases under treatment. With these onerous duties, never having quite recovered the exposure and privation of the Burmese campaign, from whence he was invalided home, his health gave way. He was sent from De Aar to recoup at the hospital of the Imperial Yeomanry at Deelfontein, but it was there found that he had contracted the disease (enteric fever) which he had been combating, and to which, to the intense sorrow of all his many friends, he succumbed on 22nd May, 1900—truly a life given in noble devotion to his duty and country.

Major Marsh was a fluent speaker and a brilliant conversationalist. He was the author of "Magazine Rifles in War." This was given as a paper at the United Service Institute, and considered of such merit that the Institute afterwards published it in pamphlet form. He wrote

also on "Antipyretics and the Rational Treatment of Fevers," and "Young Soldiers in India."

Major Marsh married Miss Cecilia Bacquera, daughter of Señor Don Vincent Bacquera, of Malaga, Spain, and great sympathy is felt for his young widow in her bereavement. His untimely death, at the age of 44, has cut short a brilliant career, and is an intense grief to his relatives and his large circle of friends.

Lieut. Guy Harle Irvine, R.A.M.C., who was killed in the disaster at Sanna's Post, South Africa, on March 31st, was formerly a student at the University College and Royal Infirmary, Bristol.

He was educated at Wellington College. He commenced his medical studies in October, 1893, and qualified in October, 1898. He entered the R.A.M.C. in February, 1899, passing in tenth on the list. In the examination at the end of his course at Netley he obtained the second place, being first in four subjects.

Lieut. Irvine left England in October last, and was appointed to General French's Cavalry Brigade. At the time of his death he had medical charge of P, Q and U Batteries of the Royal Horse Artillery, and we hear that on the day of his death he was under fire for two hours dressing the wounded. His loss is felt very keenly at the University College and at the Royal Infirmary, where he was much esteemed by all with whom he was associated.

William Fitzwilliam Carter died at his residence in Coronation Road on April 26th, from typhoid fever, in his sixtieth year. Mr. Carter received his medical education at the school of the Royal College of Surgeons in Ireland, and became qualified as L.R.C.P. Irel.in 1863; two years later he was admitted L.R.C.P. and L.M. Edin. Mr. Carter was for a short time in practice in Brisbane, Australia, where he was honorary physician to the Lady Bowen's Hospital, and on his return to England he settled in Bristol. He was formerly district medical officer and public vaccinator for Bedminster, and was only quite recently granted a superannuation allowance by the Board of Guardians. He was also formerly medical officer of the Bedminster Fever Hospital.

John Broom died at his residence on February 26th, in his fifty-eighth year, after a short illness. The deceased gentleman received his medical education at the medical schools of Liverpool, Sheffield, and the London Hospital, and qualified as L.R.C.P. Irel., and L.R.C.S. Edin. in 1870, three years later graduating as M.D. of Brussels University with distinction. Dr. Broom shortly afterwards commenced practice in Sheffield, and in 1877 came to Clifton as partner with the late Dr. T. E. Clark, the partnership terminating in 1879.

Local Medical Notes.

BRISTOL.

University College, Bristol.—Mr. F. R. Cross, M.B., F.R.C.S., has been appointed to the recently-instituted Lectureship of Ophthalmology.

At recent examinations Mr. W. S. V. Stock graduated as Bachelor of Medicine at the University of London, and Messrs. W. J. Lord and T. White were successful in obtaining the M.R.C.S. and L.R.C.P. diplomas.

Mr. J. Phillips, M.R.C.S., L.R.C.P., has been appointed Senior House Surgeon to the Bradford Royal Infirmary, and Mr. W. J. Lord, M.R.C.S., L.R.C.P., Assistant House Surgeon to the Bristol General Hospital.

ROYAL INFIRMARY.—The annual meeting of the subscribers and friends of this institution was held on March 27th, under the presidency of Sir Chas. D. Cave, Bart. The report stated that 3,087 in-patients and 39,883 out-patients had been treated during 1899, the numbers for 1898 being 2,969 and 40,504 respectively. The financial statement showed that the total ordinary income amounted to £11,479, against £9,913 in 1898, and the total ordinary expenditure to £14,393, against £14,218 in 1898. The committee state that the total deficit of the Infirmary is now £12,926, and add that unless more subscriptions are received they may be compelled to close some of the wards. Sir Charles Cave was re-elected president. The following scholarships and prizes had been awarded:—University Entrance Scholarship (£50), Mr. S. C. Hayman; Lady Haberfield Entrance Scholarship (about £30), Mr. L. W. Morris; Suple Medical Prize and Gold Medal, Mr. P. G. Stock; Tibbits Memorial Prize, Mr. D. T. Price; Special Midwifery Certificates, Mr. T. S. Davies, Mr. H. James, Mr. M. H. Phillips, Mr. C. F. Walters; Pathological Prizes, Mr. W. B. Prowse, Mr. P. G. Stock, Mr. W. N. Blatchford, Mr. H. Hemsted, Mr. E. M. Pearse, Mr. D. T. Price.

GENERAL HOSPITAL.—The annual meeting of this institution was held on March 12th, under the presidency of Mr. W. Proctor Baker. The medical report stated that 2,023 in-patients had been admitted during 1899, against 1,393 in the previous year; the out-patients numbered 29,287, against 27,876 in 1898. The financial report showed that if it had not been for utilised legacies there would have been a deficit of £2,300; the workpeople's contributions amounted to £2,041. The ordinary finances showed an increase over 1898, but this was accounted for by the larger amount of donations. It was stated that the following scholarships had been awarded:—Clarke Surgical Scholarship of £15 to Mr. R. G. Johnson; Sanders Scholarship of £22 10s. to Mr. R. G. Johnson; Lady Haberfield prize of £29 9s. 8d. to Mr. L. W. Morris; Martyn Memorial Scholarships, £10 to Mr. T. Aubrey and £5 each to Mr. R. G. Johnson and Mr. L. A. Moore.

BRISTOL CITY AND COUNTY LUNATIC ASYLUM.—The thirty-ninth annual report of this institution, which has just been issued, shows that on December 31st, 1899, there were 778 patients—379 males and 399 females—in the asylum. The highest number resident at any one time in the year was 799. The extension of the asylum buildings, with the exception of the isolation hospital, will shortly be completed, and will be ready for occupation early in the summer. The committee, in concluding the report, expressed their high appreciation of the manner in which the medical superintendent and the officers and staff of the asylum had performed their respective duties during 1899.

ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—At the annual meeting, held on March 17th, the medical report stated that the out-patients numbered 4,978, and that 690 children and 45 women were admitted during the year; 443 dental cases had been attended to. The financial statement showed that the ordinary expenditure of the year amounted to £4,422, and the ordinary income was £3,657, leaving a deficiency of £765. The past year commenced with an adverse balance of £2,811, towards which £889 had been received by special donations and £1,200 had been transferred from the legacies account, so that at present there is a total deficit of £1,487.

EYE HOSPITAL.—The eighty-ninth annual meeting of the Governors of this institution was held on March 28th, under the presidency of Mr. F. Richardson Cross. The medical report states that 364 in-patients and 4,975 out-patients had been treated during the year. The financial statement showed that the ordinary income amounted to £1,022, and there was now an adverse balance of £499. The Committee reported that a new story was being added which would provide better sleeping accommodation for nurses and servants, some small wards for patients, and a good operating theatre. A new wing was also being built, which would contain a sitting-room for nurses and a new operating theatre for out-patient cases. The approximate cost of the alterations will be about £6,000, towards which £2,500 have been received from private collections, and the committee appeal to the public for further subscriptions.

EYE DISPENSARY.—The annual meeting of the subscribers and friends of this institution was held on April 3rd, under the presidency of Mr. P. J. Worsley. The medical report showed that 1,762 patients had been treated during 1899, against 1,710 in 1898. The financial statement showed a favourable balance of £8.

PORT SANITARY DISTRICT.—The annual report of the medical officers of health of the Port Sanitary District for 1899 has just been issued. It shows that 1,544 vessels were inspected in dock during the year, and that the percentage of these found with sanitary defects was 14.4 as against 17.1 in 1897, the previous lowest record. Three notifications of suspected cases of plague were received from London, Southampton, and Cardiff respectively. Disinfection was carried out on five vessels from infected ports, especial efforts being made to exterminate the rats on board.

MEDICAL MISSIONARY SOCIETY.—The twenty-eighth annual meeting of this Society was held on March 13th, under the presidency of Mr. J. Storrs Fry. The honorary secretary stated that 7,535 patients had been under treatment during 1899; their attendances numbered 22,587. 1,833 patients had been attended at their homes. The financial report showed that the adverse balance of 1898 had been slightly reduced by a legacy received, but the expenditure exceeded the income from subscriptions and donations.

HOSPITAL SUNDAY.—At the meeting of the Committee of the Bristol Hospital Sunday Fund held recently, it was stated that the total collections received amounted to £1,362. There were 200 collections in churches and chapels, being 49 in excess of last year.

MEDICAL DRAMATIC CLUB.—The members of this Club celebrated their twenty-third anniversary by the production in April of Mr. J. M. Barrie's comedy "The Professor's Love Story." A collection was made on behalf of the Royal Infirmary and General Hospital.

PRINCESS CHRISTIAN HOSPITAL.—News was received in Bristol recently that Major Mathias, R.A.M.C., and Mr. Paul Bush have accepted provisionally, on behalf of Mr. Mosely (who fitted out the Princess Christian Hospital), the generous offer by the owner of the large estate of Pinetown as a site for the hospital. The place is situated between Pietermaritzburg and Durban. The whole estate has been placed unreservedly at the disposal of the hospital staff. It is known in the district as "the garden of Natal." It lies 1,000 feet above sea level, and has an excellent water supply. The hospital will be in close relationship with the Princess Christian Hospital train, which will convey the injured and sick to the doors of the hospital buildings.

BATH.

ROYAL MINERAL WATER HOSPITAL.—The annual meeting of this institution was held on May 1st, under the presidency of Colonel Vaughan-Dymock. The report stated that 1,251 in-patients had been admitted during 1899, the daily average number in the hospital was 152, and the average stay of each patient was 44¾ days. The financial statement showed that the expenditure amounted to £5,879, which was higher than usual, owing to considerable repairs and improvements having been made in the hospital; there was a favourable balance of £464 remaining. Twenty beds have been placed at the disposal of the War Office authorities for the wounded soldiers, but up to the present only nine soldiers have been sent.

BURNHAM.

PUBLIC HEALTH.—Dr. F. C. Berry has been re-appointed Medical Officer of Health.

CARDIFF.

INFIRMARY.—The annual meeting of those interested in this institution was held on February 28th, under the presidency of General Lee. The annual report stated that during 1889 there had been 1,700 in-patients admitted. The out-patients numbered 13,556, an increase of 513 as compared with the preceding year. The financial statement showed that the ordinary income amounted to £6,988, an increase of £98 as compared with 1898. Legacies and donations amounted to £2,600, and the subscriptions of working men had increased by £300. The total expenditure was £9,050, an increase of £520 as compared with the previous year. The chairman stated that the adverse balance of the Infirmary was now about £8,000.

Dr. W. G. Williams has been appointed Assistant House Surgeon.

CHELTENHAM.

GENERAL HOSPITAL.—The annual meeting of the subscribers and friends of this institution was held on March 21st, under the presidency of Colonel Croker-King. The medical report stated that 804 in-patients and 4,771 out-patients had been treated during the year, and at the branch dispensary 3,835 patients had been attended. The financial statement was satisfactory, but showed that although subscriptions had increased, donations and legacies had fallen off. A new wing had recently been added to the hospital, and a room fitted up for Röntgen ray work, and an ophthalmic room provided. The average cost of each in-patient was £4 14s. 2d., and of each out-patient 3s. 5½d. Colonel Croker-King was re-elected president.

DEVONPORT.

THE MILITARY HOSPITAL.—The work of erecting the new buildings of the Military Hospital, Stoke, is already well advanced; one of them is ready for occupation, and the remainder will soon be finished. The new buildings, or huts, of which there will be nine, are being erected in portable sections, so that they can be removed to another site if required. Notwithstanding this feature of their construction, they are of a substantial character, and internally resemble in every respect an ordinary hospital ward. Each hut will be 70 feet long with a breadth of 20 feet 7 inches, and will accommodate sixteen patients, with separate rooms for attendants and other purposes. The system of ventilation adopted is that by which a revolving ventilating tube will run the whole length of the roof.

EXETER.

ROYAL DEVON AND EXETER HOSPITAL.—The annual meeting of this institution was held on February 22nd, under the presidency of Colonel Lucas. The medical report stated that 1,322 in-patients had been admitted, against 1,343 in 1898. The out-patients numbered 4,303, against 3,850 in the preceding year. Seventy-five patients had been sent to the Ockenden Convalescent Home in connection with the hospital. The average daily number of in-patients was 145. The financial statement showed that the income from all sources amounted to £13,698; the ordinary expenditure was £8,460, and the extraordinary expenditure was £3,677, making a total of £12,137.

PLYMOUTH.

PUBLIC HEALTH.—The Borough Council has decided to add measles and whooping-cough to the list of diseases to be notified under the Infectious Diseases Act. It has further determined that phthisis should be made notifiable at the discretion of the medical practitioners. It has also decided to enlarge the lunatic asylum at Blackadown by erecting buildings to accommodate 250 additional patients. The estimated cost was £32,500. A tender has been accepted for erecting sewage works at a cost of £88,026.

PREVENTION OF TUBERCULOSIS.—On April 19th the Devon and Cornwall Branch of the National Association for the Prevention of Consumption held its annual meeting at Plymouth. The report of the committee gave some interesting information as to the existence of tuberculosis in dairy cattle in the West. Out of 204 cows in the Ilfracombe district, only one was found to be tuberculous. As regards the question of notification, the sanitary committees of Devonport and Stonehouse are considering the question of voluntary notification.

NEWQUAY.

PUBLIC HEALTH.—At a meeting of the Urban District Council held on May 1st, the Medical Officer of Health (Dr. A. Hardwick) reported that 149 cases of measles had been notified during April. After a considerable discussion the Council decided to ask the Local Government Board to consent to measles being excluded from the list of notifiable diseases in Newquay.

TORQUAY.

TORBAY HOSPITAL.—The annual meeting of this institution was held on February 15th, under the presidency of Mr. R. Mallock. The medical report showed that 359 in-patients had been admitted, against 366 in 1898. The expenditure amounted to £2,127, and there was an adverse balance of £382. The committee decided that the honorary medical staff should form a council for the consideration of all professional subjects connected with the hospital, and that all by-laws, etc., proposed by them should be subject to revision and confirmation by the board of management.

WESTON-SUPER-MARE.

ROYAL WEST OF ENGLAND SANATORIUM.—The annual meeting was held on February 22nd, under the presidency of Mr. F. J. Fry, J.P. The medical report showed that 2,117 patients had been admitted (1,171 men and 946 women), showing an increase of 114 on the number for 1898. 8,450 hot and cold sea-water baths had been used. The income for the year amounted to £3,585, and the expenditure £3,430. The committee have placed at the disposal of the Government, free of all charges, one of the principal wards for the use of convalescent soldiers returned from South Africa, and already four of them are in the sanatorium.

SCRAPS

PICKED UP

BY L. M. G.

Clinical Records (31).—Doctor: "Are you feeling very ill? May I see your tongue?" Patient: "That's no use, doctor; no tongue can tell how bad I feel."

Medical Philology (XXXIV.).—"Dote," as a verb, is now almost exclusively used to express excessive fondness, but in its earlier use it was applied to the condition now referred to in the familiar terms "dotage" or "dotard."

The *Catholicon* has, "to dote; *desipere, desipiscere.*" Mr. Herrtage in his note quotes:—

"To dote, *delirare.*" Manip. Vocab.
"Me þunche3 þe alde mon wole dotie." Lazamon, i. 140.
"His mouth slavers, his tethe rotes, His wyttes fayles, and he ofte dotes."
Pricke of Conscience, l. 785.
"*Radoter.* To dote, rave, play the cokes, erre grossly in vnderstanding." Cotgrave.

C. L. G., writing in *The Londoner* of May 5th, says that "Mr. Treves's attack on the society ladies at the front, who with the flies constituted the two great plagues of South Africa, must be my excuse for the following:—

There was a young *belle* from North Berwick,
Whose conduct was highly hysteric;
She followed the guns,
And distributed buns
To the men who were down with enteric.

"Sir Walter's famous eulogy will, we fear, have to be revised in accordance with the condemnation of Mr. Treves—which, by the way, has already elicited a penetrating shriek of protest from the *Daily Female*. Henceforth it must run:—

O woman! in our hours of ease
Uncertain, coy, and hard to please;
When pain and anguish wring the brow,
More terrible than flies art thou."

Dr. Weir Mitchell as a Poet.—The Congress of American Physicians and Surgeons, held on May 3rd, produced some interesting communications. Dr. S. Weir Mitchell, whose literary accomplishments are well known, wrote for it and read a poem entitled "The Physician," the whole of which is printed in the *Philadelphia Medical Journal* of May 5th. After a historic glance at the sources of Medicine, we read—

"Too oft our changeful story seems to show
That what men knew they only seemed to know.
They lived, they toiled, they joined the silent dead.
On dusty shelves their books repose, unread.
The scholar wandering o'er this vast domain
Once rich with living thought, may think how vain
Our work will seem to those who hither come
To sum our gains when we, in turn, are dumb.
Yet that which wins to-morrow's grateful praise
Is the sure child of faltering yesterdays,
And countless hands must till the stubborn soil
That one may reap the harvest of their toil."

Jenner and Harvey receive appreciative notice, and we are urged to follow their steps:—

"Know the true children of the mighty dead
Are they alone who in their footsteps tread,
And that a man's true ancestors are they
Who, dying, left him all that genius may.
You wield new arms, are 'neath new flags arrayed,
Yet you are still what these our fathers made."

We are reminded that—

"God's ways are dark, and in their gloom we walk;
Not ours to know why life's grim spectres stalk.
We tread mysterious paths in touch with pain,
Birth, death, disease, strange phantoms of the brain.
Perplexed we recognise the doubtful hour
When indecision paralyses power.

. . .

Our ancient lesson will be ever new;
That priceless lesson will be ever true;
Time did not teach it: time will change it not,
This, this shall last, though all our love's forgot,
To give what none can measure, none can weigh,
Simply to go where duty points the way;
To face unquestioning the fever's breath,
The hundred shadows of the vale of death;
To bear Christ's message through the battle's rage,
The yellow plague, the leper's island cage,
And with our noblest 'well to understand
The poor man's call as only God's command.'"

Dr. Mitchell lamented that those to whom we are most indebted do not always receive their meed of praise, and he pays his tribute to a pioneer of anæsthesia:

"We are but mortal, and, with blinded eyes,
May fail to see who surely won the prize,
Or see too late, as once we saw in vain
The fate of him who wrought the death of pain.
Guard well that memory, lest again we flout
Some hero-victim with our torturing doubt.
How thanked we Morton? Ah! 'No joy-bells rang,
No pæons greeted, and no poet sang.
No cannon thundered from a peaceful strand
That bloodless victory to a grateful land.
We took the gift, so humbly, simple given,
And, coldly doubting, left the rest to Heaven.'"

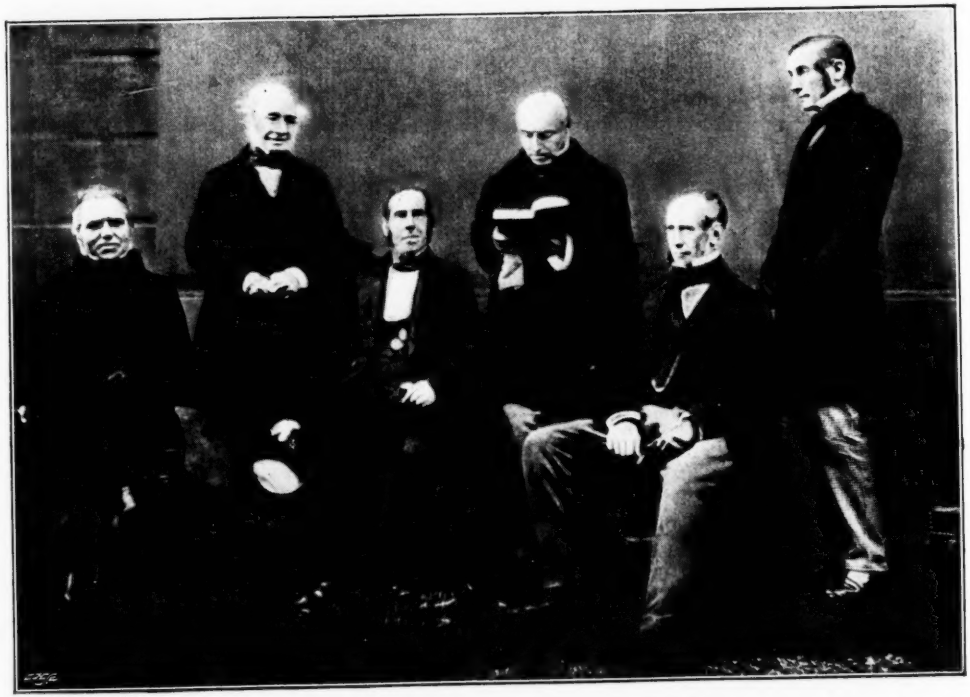
Dr. Weir Mitchell also wrote a poem addressed to Dr. Abraham Jacobi, whose seventieth birthday has just been celebrated at a banquet in New York attended by four hundred of his friends and professional associates. During the evening there was presented to Dr. Jacobi a "Festschrift" entitled *International Contributions to Medical Literature*, which contains a large number of original papers by eminent physicians and scientists in all parts of Europe and America. More than a year was taken up in the preparation of the volume, which is believed to be the first of its kind published in America. The Bristol Medical Library has received a presentation copy. I quote four stanzas from Dr. Mitchell's poem, which is printed in full in the *Boston Medical and Surgical Journal* of May 10th and in the *Medical News* of May 12th:

"*Ave Magister!* Take from us to-night
The well-earned praise of all who love our art
For this long lesson of unending work,
For strength of brain and precious wealth of heart.

"Your busy hand gives much; but, oh, far more,
The gallant soul that teaches how to meet
Unfriended exile, sorrow, want and all
That crush the weak with failure and defeat.

"*Ave Amicus!* If around this board
Are they who watched you thro' laborious years,
Beyond these walls, in many a grateful home,
Your step dismissed a thousand pallid fears.

"That kindly face, that gravely tender look,
Thro' darkened hours how many a mother knew!
And in that look won sweet reprieve of hope,
Sure that all earth could give was there with you."



From a Daguerreotype.

W. F. MORGAN. NAT. SMITH. HENRY CLARK. JOHN HARRISON. THOS. GREEN. RALPH BERNARD.

GROUP OF INFIRMARY SURGEONS, 1854.

GROUP OF INFIRMARY SURGEONS, 1854.

The Bristol
Medico-Chirurgical Journal.

SEPTEMBER, 1900.

REMINISCENCES OF THE BRISTOL ROYAL INFIRMARY.

BY

ARTHUR W. PRICHARD.

(Extracts from the Presidential Address given before the Bath and Bristol Branch of the British Medical Association, June 27th, 1900.)

GENTLEMEN,—You have elected me to be your president, I take it, not for any great work that I have done, nor for any excellence in any particular branch of medicine or surgery, such as some of my predecessors in the chair have achieved, but you have given me this distinction because I am senior surgeon of the Bristol Royal Infirmary, and because I happen to be a member of a family that has been represented on the staff of the Infirmary, either as consulting or acting physician or surgeon, with a very few months interval, since a year after the battle of Waterloo. It is natural, then, that I should wish to take this opportunity to draw your attention to the Infirmary, and I purpose to confine myself to a few points in the history of the Institution that have occurred during the last fifty and especially during the last twenty-five years, and to illustrate these points from the lives of some of the members of the staff who have gone from us, and whose personalities are recalled to memory by fewer and fewer among us every year.

The first noticeable event in the last half-century was the death of Mr. Lowe in 1850. Mr. Lowe had been surgeon since 1807, and it was because he and some others held office long after they could be reasonably expected to perform properly their duties to the patients and the students, that in 1843 the Committee passed a rule that no physician or surgeon should continue as such for more than twenty years. My father and Mr. Green, and Dr. Fox and Dr. Fairbrother among the physicians, were affected by that rule. In 1876 this was altered to its present reading, which is that no physician after the age of sixty, and no surgeon after the age of fifty-five, may continue upon the acting staff; but if elected to the honourable post of consulting physician or surgeon, he is requested and expected to give the valuable aid which his vast experience will have given him for the benefit of his junior colleagues in consultation.

I hold in my hand a photograph of four of the surgeons of 1854, and two consulting surgeons; the only omission is the junior surgeon but one—namely, my father, who was the photographer. I think you will agree with me that the Committee were right when they decided that it was not the best thing, at all events for the patient, that gentlemen of such mature age should be called upon to perform some critical operation at any hour of the day or night.

We ought, I think, to take more than a passing interest in these men, who did a vast amount of work for the advantage of the Infirmary, under conditions which were then very much more arduous and less pleasant than at the present time.

A few words, then, about each, not from personal acquaintance, but from facts supplied by senior friends; for though I remember them all, yet I was then too young for any opinion of mine about them to be of any value.

In 1854 the surgeons were, Mr. Harrison, Mr. Henry Clark, Mr. Thomas Green, Mr. Augustin Prichard, and Mr. Ralph Bernard. Mr. Nathaniel Smith and Mr. Morgan were consulting surgeons.

Mr. Harrison was surgeon from 1836 to 1859, and became senior surgeon in 1850 to the great advantage and comfort of

the staff under him. He was a first-rate surgeon, and almost the first advocate in this country of a tonic and strengthening plan of treatment after operation. Perhaps it was his social qualities for which he will be most remembered. Painter, musician, and even poet of no mean order, his kindly and cheerful disposition, combined with a keen sense of humour, great observation, and an excellent memory, made him a delightful companion with an unflagging interest and sympathy in everything and everybody. He was a brilliant conversationalist, and once get him in the vein he would be full of anecdote, whether of his own young days, recollections of the famous riots, or of his life in the West Indies, or perhaps gruesome stories of the part he took as a young man in resurrecting bodies from the churchyards in the neighbourhood of Bristol. One who knew Mr. Harrison well and used to visit him in his latter days retains a keen recollection of his unfailing energy and invariable cheerfulness and patience under the burden of constant pain, and bodily infirmity. Never idle, in spite of his 80 years, his spirit was as bright as ever, and though his one remaining hand was much crippled by rheumatism, he would yet be touching up one of his fine sketches, or penning some graceful sonnet in his laborious writing, and all would be done with the same freshness and interest. To the last day of his life Mr. Harrison never lost the wonderful personal charm which distinguished him all through his long and gifted career.

Mr. Henry Clark was elected on the surgical staff of the Infirmary in 1843 in place of Mr. Richard Smith, who had held the surgeoncy for forty-seven years. He was one of the leading provincial surgeons, though rather a nervous operator; but it is as a teacher that his name will dwell longest in the memory of posterity. As far back as 1826 he taught anatomy in some rooms he had fitted up for the purpose close to his house in King Square. This school of anatomy was merged in the Bristol Medical School in 1854. He continued lecturing until 1860, latterly taking the course of lectures on surgery. It was owing to Mr. Clark's influence with the founder that the Suple prizes were instituted at the Infirmary. He also himself left a legacy of £500, the interest to form an exhibition for the best

third year's Infirmary student at the school. His private practice was a very large one, and I think I am right in saying that he was the most prominent surgeon of his time, just as Dr. Symonds was the most prominent physician then for this part of the world. He never took a holiday—he would probably have lived longer if he had. What leisure he had he devoted to a model farm which he built at Chew Magna, and used at one time to ride out to it with one or other of his daughters in the early morning and back in time for his patients in Bristol, but he seldom slept there. He retired from the Infirmary in 1857, and died in 1861 at the comparatively early age of 59. He was one of the original members of this Association, and in 1853 president of the Branch. He was also one of the early Honorary Fellows of the Royal College of Surgeons.

Mr. NATHANIEL SMITH, F.R.C.S., practised in Bristol from about 1807 to 1863, when he retired to Weston. He was surgeon to the Infirmary 1816 to 1844, and was consulting surgeon at the time the photograph was taken. He is said to have been an extremely neat operator, and was most precise in his dress, so that the joke that in name and nature he was "natty" was frequently made. He was not successful in laying up for himself an abundance of this world's goods, as his unbusinesslike habits and, to a great extent, his kindness to his patients often deprived him of his just dues, although he had a vast practice in Clifton. He died in 1869, aged 87.

Mr. W. P. MORGAN was born in the year 1800, passed the College and Hall in 1823, and shortly afterwards was elected house-surgeon and apothecary at the Infirmary, where he had previously been a student. He held this appointment for nine years, and was elected surgeon, in succession to Mr. William Hetling, in 1837. He was no great writer, though an able surgeon, nor did he take any active part in public matters, probably owing to the fact that he suffered from a slight impediment in his speech. He resigned the surgeoncy in 1854, and died almost suddenly of heart disease on Sunday, the 7th December, 1872. As I remember him, he was a grey-whiskered little man, neatly dressed in a long frockcoat. Documents which I have seen concerning him, and the

testimonials which he received from his colleagues and the Committee, show what a very high opinion everyone had formed of his worth and character, and old friends now living tell me they look back upon Mr. Morgan as an ideal of everything that was kind and good and true.

Mr. RALPH BERNARD succeeded Mr. Morgan in 1854. He opposed my father in 1850, when my father was the successful candidate. In those days the election of a surgeon to the Infirmary was a very different thing from what it is now. It somewhat resembled a parliamentary contest of the olden time: each candidate had his committee and committee-rooms; posters were stuck upon the walls, and the subscribers were brought to the Guildhall to register their votes in person, and the hourly publication of the probable numbers from the rival committee-rooms caused feeling to run very high. The students, as they were for or against any candidate, had a fine opportunity for the demonstration of their powers of persuasion. It was, I believe, owing to the general excitement and interruption of business which the 1850 election caused, that voting by proxy was introduced; and this plan was again altered in 1892 to the present system, in which a Committee of Election, composed of about fifty-seven subscribers including the House Committee and most of the staff, quietly select the candidate, and announce his appointment in the Board Room at the Infirmary. Mr. Bernard was elected in 1854, and was a surgeon of the old school rather after the type of Mr. Lowe, whose pupil he had been. He was an extremely useful member of the surgical staff, being regular and punctual, and a strict disciplinarian. He was rather a terror to the students, and the resident officers also felt his influence. His life came to a sad and abrupt end, as in 1874 he fell over a cliff in South Wales, in the presence of his wife and children, and was killed instantly.

Mr. THOMAS GREEN, F.R.C.S., was surgeon from 1844 to 1864, and was also a surgeon of the old type,—one who, having begun his operative work in pre-anæsthetic days, had the reputation of being a quick operator, though perhaps somewhat free in the use of the knife. Born at Youghal, in County Cork, he began his medical education in Dublin, and afterwards

studied in Paris at the Hotel Dieu, under Trousseau, about whom he always had something remarkable to relate. He was an Irishman to the very backbone, and possessed that tender-heartedness and generosity which is a characteristic of so many of his fellow-countrymen. This kindness and sympathy he manifested not only among his Infirmary patients, but especially towards members of his own profession in illness and distress, and many letters of gratitude from old or unsuccessful medical brethren whom he had befriended in the hour of trouble were found after his death. Some of my hearers may perhaps remember a little peculiarity he had of throwing open his necktie before taking the knife in hand to operate, a habit that was amusingly noticed by nurses and bystanders. This was probably connected with the extreme distress from irritability of the larynx which he suffered from later in life, and which nobody seemed able to relieve. As far as I know, he has been the only one of the surgeons of the Infirmary who attained the dignity of being elected an Alderman of the City of Bristol. He died in October, 1878.

Others who have passed away I shall have to mention presently, but that will be from my own recollection of them. When I entered as a three-years' dresser to my father, in 1869, the surgeons were Augustin Prichard, Ralph Bernard, Crosby Leonard, Thomas Clark, and R. W. Tibbits; and how things have changed since then! Not only have they all gone, but with them have disappeared many of the customs and formalities which had clung for generations round the office of the individuals who had risen to the high pedestal of being Surgeon to the Royal Infirmary. I am not such a *laudator temporis acti* as to wish to have the old conventionalities reintroduced. A certain amount of form and order we still observe, and they are essential for the smooth working of a great undertaking; but some of the old habits which were ably referred to two years ago by Dr. Weatherly, when he spoke in his address about his student days, have been improved away. About this time (1870) every member of the staff going round the wards kept his hat on—the only exception, I think, being Dr. Beddoe,—and the wearing of the hat was a sign that the wearer was a

qualified medical practitioner. It was a privilege which we students looked forward to, and when any one of us passed the College he walked round the wards—preferably on a Saturday—with his hat on, much to his own gratification and our envy. Again, every dresser wore a dressing-gown, and the colour and cut of it showed to which surgeon that dresser belonged. As then most surgeons had two or three dressers, this was some advantage; but I am afraid that these garments were not of a very aseptic nature, and would hardly pass muster in the present age. We had to carry a pocket-case of instruments and a roll of spread ointments and plasters and lint, and, though perhaps I say it who should not, I believe that the patients were very well attended to and dressed, and notes were made of their cases, though not in the systematic way that is now in vogue.

Passing over the question of nurses, and the different social position from which most of them now come, I cannot but mention, in comparing the new with the old, the improvement there is now in the appearance of the wards. Formerly each ward was like the inside of a workhouse; now the sisters vie with each other to make their own domain the brightest, and, what with prettier colours on the walls and beds, parquetry floors, palms and plants, pictures, dressing baskets, screens and tables, couches, and other modern appliances, the place hardly seems the same.

In the beginning of 1870 the honorary staff consisted of four physicians and five surgeons, and they all were supposed to see out- and in-patients; there were two residents—the house-surgeon (Mr. Board) and the assistant house-surgeon (Mr. Ebenezer Ludlow)—and no assistant surgeon or physician. As the two residents, in addition to their ordinary daily work—attendance at operations, giving anæsthetics, and doing the work of registrar,—had to see the out-patients of any absent member of the staff, one can imagine that they were tolerably busy, and we could not grumble if they did not give us any coaching in the morning go-round. How different it is now, with five resident officers, four assistant physicians and surgeons, obstetric physician, dental surgeon, pathologist, skiagraphist, bacteriologist, every one of whom, in addition to the ordinary

and in-patient staff, is ready and willing to give help to the student. I for one think that the student of the present day scarcely appreciates the advantage he has over his predecessors, and for which he ought to be thankful.

I do not mean to attempt to give a retrospect of surgery. Many such will probably be written within the next twelve months; but leaving out operations on the abdomen, which are so common now, and which in 1870 were undertaken with grave misgivings, I must mention compound fractures, amputations, and herniotomies as I remember them as a student. A case of compound fracture was always looked upon as most serious; and if it did not cost the patient his limb or his life, was one of tedious suppuration and more or less incapacity afterwards. How different now is the result with proper cleansing, drainage, perhaps wiring, and sealing the wound! Amputations were rather expected to, and generally did, heal by suppuration, and extra long flaps were made to allow for such a contingency; and as to herniotomies, the great point was not to open the sac, and I think I am right in saying that in the majority of cases the result was fatal. Hempen ligatures in all operations were used for the tying of vessels—one end cut short and the other left out at one extremity of the wound. The ligature was gradually thrown off after it had cut its way through the vessel, and if after a few days it was found by gently pulling not to be loose, a bullet or some other light weight was attached to the thread to hasten separation. Horsehair sutures from a large leash of horsehair hung up under the gallery of the operating-room were generally used; there was no systematic drainage, only what the long ends of the ligature unintentionally assisted at, and the wounds were dressed either with lint spread with ointment or with lint soaked in tincture of benzoin, which as it dried formed a hard crust over the wound. Where there was tension harelip pins and discs of cork with thread wound in a figure of 8 over them were used for button sutures, and the plan was especially useful in flap amputations.

I may also mention the decade 1870 to 1880, on account of the changes that took place then in the personnel of the staff, and so rapid were the changes that the house-surgeon of 1869

was senior surgeon ten years later. It happened thus: My father resigned in 1870, owing to the twenty years rule, although he was only fifty-one years of age, and Mr. (now Dr.) Steele was elected in his place. Mr. Bernard was accidentally killed in 1871 and Mr. Board elected. Mr. Thomas Clark retired in 1873, and Mr. Crosby Leonard and Mr. Tibbits both died in 1878, and Mr. Steele retired in the same year, so that in 1879 the five surgeons were Mr. Board, Mr. Dowson, myself, Mr. Cross, and Mr. Greig Smith, with Mr. Harsant as assistant-surgeon. This great infusion of new blood, occurring at a time when what is called Listerism was beginning and surgery was in a transition state, made a great change in everything to do with the Infirmary, and I think we take the early eighties, or what may be called the days of the Carbolic Spray, as a period in which the Infirmary was most flourishing, both as regards its popularity with the public and the number of students attending. The starting of University College had, of course, a good deal to do with this.

I will now very briefly refer to those who, by death or resignation, ceased to be active members of the staff about this time. Among the physicians, Dr. Beddoe and Dr. Brittan resigned in 1873, and Dr. Fox in 1877.

Dr. BRITTAN'S connection with the Infirmary was one of seventeen years, and no one upheld the dignity of the office of physician with more grace than he. Many of us can recall the eloquence and grandeur of his speech in the Infirmary Museum, when he returned thanks to Lister on the occasion of his visit to us to give Bristol medical men a demonstration of the details of his method of antiseptic operating. Dr. Brittan was a man beloved by his pupils and highly esteemed by his colleagues, and a few years after his resignation of the physicianship he retired from the profession.

Dr. FAIRBROTHER, who retired in 1876, was a man whose peculiarities and curious individualism have been referred to more than once in old Infirmary students' speeches. No one that was associated with him can forget him. He was a tall, somewhat bent, red-faced old gentleman, with a long frockcoat, the tail of which he used to take hold of to open any door and to

wipe his stethoscope with; very voluble in his speech, and with a great disrespect of his h's. He was looked upon almost as a joke, but he was most interesting in his wonderful memory of the past, and to go round with Dr. Fairbrother was a great relaxation from the more scientific clinics of the other physicians. He never would commit himself to a diagnosis, and would never write a word; what he did in the out-patient room when he could not get any one of us to write for him I do not know. When I asked him for a testimonial, he agreed to give me one as a great favour if I would write it, or get it written for me, and he would sign it. Nevertheless, the patients loved him, and he was most successful in treatment, going thoroughly into the case, and (by his sympathy and appreciation of what he made them describe) getting to the bottom of their maladies; for he knew what would relieve them, and how to direct its application. If he did nothing else as regards us students, he opened for us an insight to the details of the living of many of the class that the ordinary Infirmary patient is drawn from.

Of Crosby Leonard, who died in October, 1879, at the early age of 51, I can say that personally I had for him the highest regard; and, next to my father, he was the one of all men whose opinion I sought on matters connected with the profession, whether one of surgical diagnosis or treatment, or a question of ethics; it was always willingly given, and I think he seldom made a mistake. His life was one full of work and success, and his death made a peculiar gap in the profession which to some of us was never quite filled up. He was a man whose vast experience was to the profession thrown away, for he was a most careful observer, and kept records of all his operations and unusual cases, yet his name seldom or never appeared among the contributions to the medical journals. Perhaps he meant to publish his deductions later, but his premature death deprived the medical world of a valuable and true account of the results of methods of treatment that come under the ken of a hospital surgeon with a large practice.

No one of the staff about this time did more, or rather

began more, for the Infirmary than Mr. Robert W. Tibbits, who was surgeon from 1868 to 1878. He was an excellent surgeon, and was a man of wonderful energy, and one who took the well-being of the Infirmary tremendously to heart. He was very outspoken, very popular with the students, but in his great push for reform not so popular with the older and more conservative members of the committee and staff. It was he who realised that the want of success that followed so many of the operations in that pre-Listeran epoch was due, not to want of skill on the part of the operator, but to the unsanitary condition of the house, and it was he who initiated and brought about the remodelling of the place which was carried out in 1875–1876. Temporary premises were taken at the bottom of Colston Street, where the work of the Infirmary was carried out during the alterations. All old flooring and woodwork, all old plaster and windows, were removed and replaced by new, and a system of drainage introduced in which the lavatories were placed in projecting turrets outside the walls and ventilated into the open air, and a proper supply of Company's water laid on instead of the old well, and a cottage was built at the bottom of the garden for erysipelas and allied diseases. This was all done in a satisfactory manner at a cost of £20,000, and the Infirmary was opened again in September, 1876, with the sanitary arrangements then perfect up to date. The result was immediate, especially in respect to surgical work; but Mr. Tibbits did not live long enough to see the fruit of his labours. He died of apoplexy in 1878, and his funeral at Westbury was attended by a larger number of friends of the Bristol Royal Infirmary than probably has ever assembled on a similar occasion.

ABDOMINAL INCISIONS.

BY

THOMAS CARWARDINE, M.S. (Lond.), F.R.C.S.,

Assistant Surgeon, Bristol Royal Infirmary.

THE abdominal parietes depend to a large extent for their arrangement upon the survival and evolution of those structures which are of use in the economy. We should therefore expect, as we find, that the normal anatomical arrangement of the abdominal wall, as the outcome of evolution, is the standard of perfection, the ideal of the wise surgeon.

In our reverie we may look back to the time when our bellies had ribs—to be tickled, or broken, or what not. In the wisdom of Nature these have departed, leaving as their vestiges certain tendinous intersections, constant in the recti and occasional in the internal oblique. In short, the belly is a chest which has undergone metamorphosis. Accordingly, the musculature of the abdomen is homologous with that of the thorax, and agrees with it in continuity of directions. Thus the fibres of the external oblique pass downwards and forwards like those of the external intercostals, and those of the internal oblique pass upwards and inwards like those of the internal intercostals. Together they form two decussating abdominal costal muscles. The third muscle, the transversalis, is continuous and homologous with the triangularis sterni. The whole form a muscular lattice-work of decussating fibres, strongest where the decussation is most pronounced, which braces up the parietes during every strain or cough. It is Nature's method of preventing ventral hernia, and it is only lately that surgeons have realised, in its imitation, the secrets of success.

Sphincter incisions by separation of muscular fibres, and the principle of valve-action whenever two musculo-aponeurotic layers are superimposed, are bound to dominate the surgery of

the future; and as the writer has paid attention to this subject during operations on the abdomen, a few remarks may be useful.

Let me in the first place indicate that the transverse division of a muscle is a very serious affair. Be the suturing ever so perfect, muscular continuity is not re-established, but a yielding

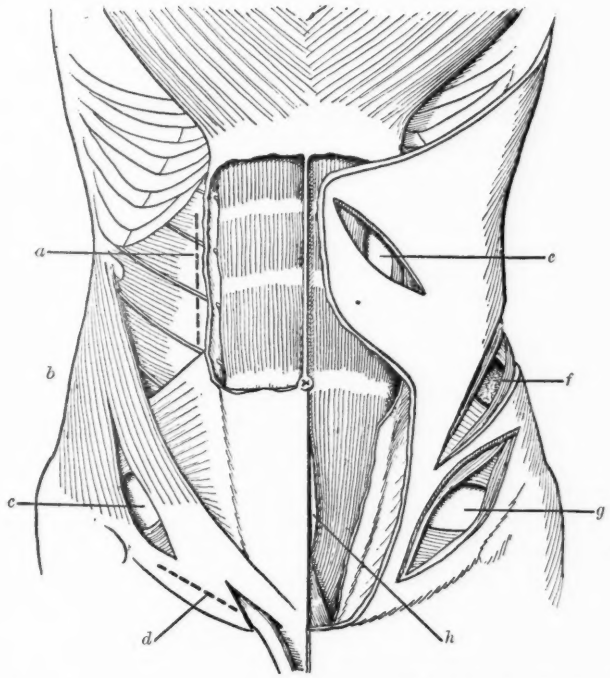


FIG. I.—Diagram of the musculature of the abdomen, chiefly designed to illustrate the advantages of separation rather than division of muscular fibres. It will be observed that Langenbuch's incision divides nerves passing to the right rectus. *a*, Langenbuch's incision for exposing the right kidney; *b*, Region showing muscular lattice-work and direction of nerves; *c*, Sphincter incision for appendicitis; *d*, Bassini's incision; *e*, Sphincter incision for gastrostomy; *f*, Sphincter incision for exposing kidney; *g*, Sphincter incision for inguinal colostomy; *h*, Median cœliotomy.

scar of variable width results. The division of a muscle always involves permanent degeneration of muscular fibres to a certain distance on each side of the line of section. This is explicable by the fact that the intramuscular nerve-fibres of the locality

degenerate, for they run some distance between the muscular fibres before they terminate. The author has often sutured divided muscle, but has invariably met with a measure of disappointment. It is also a serious matter to divide the nerve going to a muscle, for the result—atrophy—is the same as that from division of the muscle, except that the aponeurotic capsule and the epimysium remain intact.

The division of an aponeurosis is not so serious, but it is wisely avoided, for a scar is at best a poor substitute for a tendon; and if the aponeurosis ends in muscular fibres, the latter will either stretch the scar or degenerate from impaired function.

The judicious principle, therefore, in abdominal operations, is to incise in the direction of the fibres of the aponeurosis, to separate the fibres of that aponeurosis, and to separate the muscular fibres in the line of their direction—which is usually at an angle to that of the overlying aponeurosis. Let us see how these facts may be applied to present-day surgery.

Appendicitis.—The advantages of muscular separation for this condition, advocated by McBurney, are now recognised, so that a surgeon who continues to make a direct incision through the musculature is behind the times. When once a hernia has formed in the scar of a direct incision the difficulties of its cure are great, for, as explained above, the musculature has atrophied. But a hernia here is as easy to prevent as it is difficult to cure. One has only to make an incision in the line of the aponeurosis of the external oblique, to separate its fibres, and then to separate the combined fibres of the internal oblique and transversalis in a direction upwards and inwards, and we have a perfect sphincter-opening which does not really require any sutures afterwards. (Fig. I. *c*.) I find this incision adequate not only for the removal of the appendix in the quiescent interval, but also for the treatment of acute suppurating cases, and am convinced that there is no other method of incision equal to it.

Some have advocated an incision upwards and inwards towards the umbilicus; but this is open to two objections—first, that the aponeurosis of the external oblique is cut across;

second, that the musculature of the combined internal oblique and transversalis is transverse at the level of the anterior superior spine, and not oblique.

An incision at the outer border of the rectus, with mesial deflection of that muscle, has been advocated by Battle,[1] Kammerer,[2] Jalaguier,[3] and Lennander.[4] It will be seen that this may involve division of one of the nerves to the rectus. But the resulting atrophy of the rectus is not constant, and when it occurs it appears to be recovered from in time. It will be remembered that the rectus is not normally segmented below the umbilicus, which probably explains the inconstancy of atrophy here.

Colostomy.—There can be no doubt that the method of Maydl-Reclus produces the best results. In this the musculo-aponeurotic structures are merely separated in the directions of their fibres (Fig. I. *g*), and a loop of gut brought out and fixed without sutures by means of a glass rod through its mesentery. The spur is perfect, effectually preventing any passage of fæces from the upper to the lower bowel, and the sphincter is so excellent that a large receptacle is unnecessary and the patient can defæcate at decent intervals. Fig. II. shows such a colostomy in section.

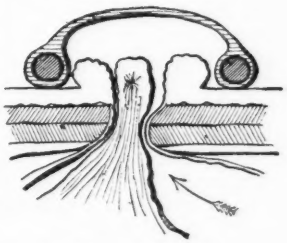


FIG. II.—Section of colostomy opening.

The principle of muscular separation is gradually becoming adopted. Thus H. Allingham, who formerly operated by direct incision through muscles, now separates the musculature.

Nephrotomy.—Except by very long incisions, the kidney cannot be freely exposed by separation of musculo-aponeurotic structures alone. But I have several times exposed it by this means, and with slight division of musculature have been able to bring the kidney out on to the loin. The lumbar skin-incision must be a long one in the direction of the fibres of the

[1] *Brit. M. J.*, 1895, ii. 1360. [2] *Presse Méd.*, 1897, 53.
[3] *Med. Rec.*, 1897, lii. 837. [4] *Centralbl. f. Chir.*, 1898, xxv. 90.

external oblique (Fig. III.), and the separation of the internal oblique must be commenced well forwards, the exposure of the kidney becoming almost abdominal rather than lumbar. (Fig. I. *f*.) The method has been spoken of highly by Mayo Robson, and I find that my former master, Henry Morris, evidently utilises the principle, for he now makes an oblique incision in the direction of the external oblique muscle.[1] Appreciating the principles, and frequently operating on the kidney, one could not do otherwise than fall into the habit of separation.

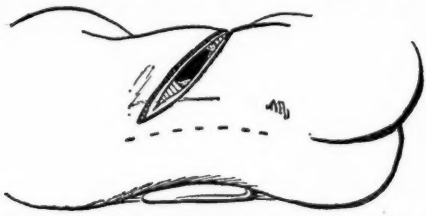


FIG. III.—Oblique lumbar incision, with separation of muscular fibres, showing fibres of the internal oblique exposed with the kidney beyond.

Ventral nephrectomy by Langenbuch's incision (Fig. I. *a*) has the disadvantage of dividing nerve fibres to the rectus. A long oblique lumbar incision, with separation of fibres of the internal oblique anteriorly, is to my mind preferable.

Gall-bladder and Bile-ducts.—Although the after-tendency to hernia is less in the hypochondriac regions than elsewhere, attempts are now made to incise on the sphincter principle by separation of the outer fibres of the rectus or else of the lateral abdominal muscles. A. D. Bevan[2] has proposed an *f*-shaped incision, with transverse extensions above and below, if necessary, so as to diminish risk of division of nerves. My own predilection is for an oblique incision upwards and inwards in the line of the internal oblique, with separation of its fibres, and continued horizontally above—like Γ opened out.

Median Cœliotomy.—In order to prevent hernia some surgeons make the incision about 1 inch to the right or left of the middle line and separate the muscular fibres of the rectus before opening the peritoneum, which is thus exposed by a sphincter-incision.

Gastrostomy.—It was an early improvement on Howse's original operation to separate the muscular fibres of the rectus

[1] *Renal Surgery*, 1898, p. 117. [2] *Ann. Surg.*, 1899, xxx. 15.

and draw the stomach through the sphincter so formed, and this principle has been employed in all the methods since introduced. (Fig. I. *e*.) The combination of sphincter and valve is especially brought out in Frank's method of gastrostomy, in which a cone of stomach-wall is brought out through separated fibres of the rectus, the base of the cone stitched there, and then the apex brought out beneath a valvular skin-flap. Mayo Robson performs a very similar operation,[1] the only essential difference being that he makes a vertical incision over the rectus, the fibres of which are separated.

Herniotomy.—The principle of sphincter-action is well illustrated in the normal anatomical arrangement of the internal abdominal ring, and the valvular action of apposed abdominal planes is borne out in the marked success which has followed Bassini's operation for the radical cure of hernia.

The Sphincter.—I am not aware that surgical attention has before been clearly drawn to the anatomical sphincter of the internal ring, which I will now describe. If the ring be examined, it will be found that certain muscular fibres pass from the outer third of Poupart's ligament into the conjoined tendon (Fig. IV. *c*), which I venture to call the tensor muscle of the conjoined tendon. It is obvious that whenever a man coughs or strains this muscle contracts and straightens the upper arch over the internal ring. Again, certain muscular fibres of the external oblique are inserted into Poupart's ligament between the lines *c* and *d* (Fig. IV.). On straining, these fibres would pull Poupart's ligament up and

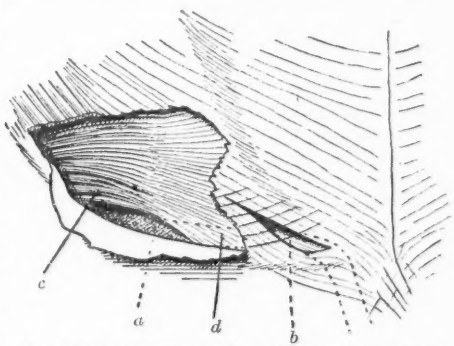


FIG. IV.—To illustrate the inguinal sphincter and valve. *a*, Internal ring; *b*, External ring; *c*, Tensor muscle of the conjoined tendon; *d*, Conjoined tendon. Above *c* are the tensor fibres of the external oblique.

[1] *Brit. M. J.*, 1900, i. 697.

straighten the lower arch of the internal ring. The two sets of fibres act conjointly as a true sphincter to the internal ring. The only modification of this sphincter in herniotomy worth noting is that in Bassini's operation the cord is held out of the way, and the inner part of the upper arch is sutured to the lower arch, thus displacing the cord outwards, and at the same time greatly curtailing the aperture between the two halves of the sphincter and approximating their insertions. (Fig. V.)

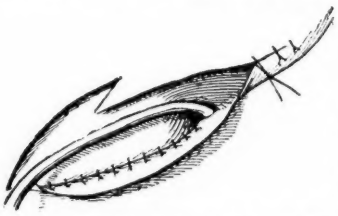
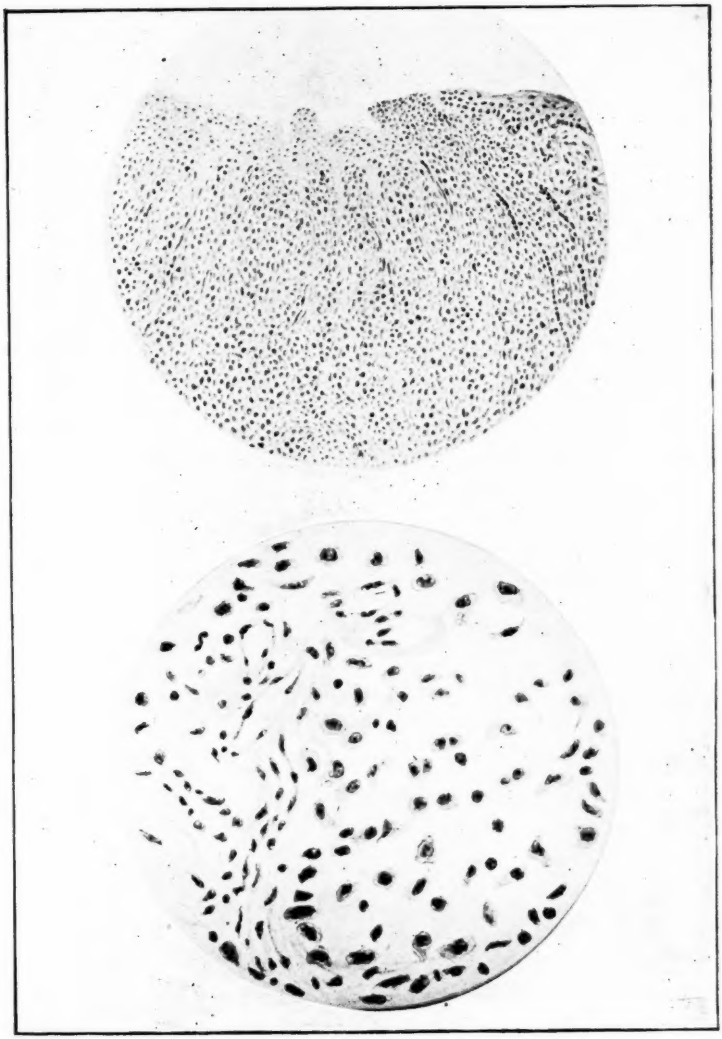


FIG. V.—Bassini's method. Showing the conjoined tendon sutured to Poupart's ligament.

The Valve.—The sphincter aforesaid is reinforced in its action by what we may term the great inguinal valve—closed by the apposition of the anterior and posterior walls of the canal during every expulsive effort (Fig. IV.). The effectiveness of this valve must depend upon the length of it, *i.e.* upon the length of the inguinal canal.

Now all operations for the radical cure of hernia, with one exception, tend to shorten this valve. The exception is Bassini's operation, by which the external oblique is slit up, the aperture of the inguinal sphincter diminished, and the length of the great inguinal valve markedly increased. When the conditions for Bassini's operation are favourable, that operation is to my mind by far the most reliable method we have for the radical cure of inguinal hernia. The resulting firmness of the abdominal wall is not approached by any other method. The absolute essential is asepsis. If suppuration should occur, the results may be disastrous. But with due care, suppuration may be almost certainly avoided, and I have used as many as thirty sutures in the operation without the least sign of infection. It is, to my mind, the only operation for radical cure which is rationally based upon Nature's plan of muscular sphincter and aponeurotic valve.

Certain American surgeons have gone to the extreme of dividing the posterior wall of the inguinal canal, and transplanting the cord inwards. One surgeon has the audacity to



SARCOMA OF THE PALATE.

The upper sketch represents the sarcoma of the palate, partly covered by mucous membrane (on the right) and partly ulcerated (on the left). The spindle-shaped cells and thin-walled vessels are well shown.

The lower sketch is under a high power ($\frac{1}{8}$th), and illustrates the spindle-shaped and large irregular sarcomatous cells, with tracts of hyaline, or mucoid degeneration, and large thin-walled vessels.

advise passing the cord through a sort of button-hole made in the os pubis. Such procedures are more the result of inordinate mechanical originality than the product of a wise application of the lessons which Nature affords. The surgeon may take it for granted that the mechanical devices wrought by evolution are sounder than the machinations of his own imagination.

SPINDLE-CELLED SARCOMA OF THE HARD PALATE.

BY

W. J. GREER, F.R.C.S. Irel.

THE literature on this subject is not by any means voluminous, the reason being, no doubt, the rarity of the condition; yet the field of medical print, though not abundantly fertile, has produced a harvest which is already reaped through the painstaking labours of Mr. Paget[1]; to the dozen cases, I venture to add another, and at the same time to inflict a dissertation on a long-suffering medical public.

The patient was a young man, aged 26 years, who enjoyed fair health (save for an accident which some years ago necessitated amputation through the right shoulder-joint) until his present trouble; his family history furnishes a paternal grandfather who suffered from "cancer of the lip," and his father at the moment is suffering from multiple nodular growths of the peritoneal cavity, possibly carcinoma. The patient presented himself to his medical man early in December, 1899, for treatment of a small sore on the roof of his mouth; this gradually increased in size, and the pain, which was always considerable, became agonizing. Treatment by cauterization was carried out without any benefit. His doctor recognized the seriousness of the condition, and gave a grave prognosis. In January of this year he came under my care. His general health was excellent, and, but for the pain, he himself would have paid little attention to the mouth: on examining the latter one could see on the right side of the hard palate, opposite the first molar, but close to the median raphé, an ulcer about the size of sixpence; the base was inflamed and raised, the floor covered with small grey granulations, with just a little pus; the edges hard, sinuous,

[1] "Tumours of the Palate," *St. Bart.'s Reports*, 1886.

and everted; the whole appearance carrying the conviction of epithelioma. No account of an injury could be elicited, nor was there a history or signs of syphilis; no enlarged gland to be detected.

I felt obliged to confirm the opinion, already expressed, that the disease was highly dangerous, and to complete the diagnosis I removed a small portion for the microscope. This was forwarded to the Clinical Research Association, and a report asked for by telegram; the reply came that the specimen was "not malignant"; no doubt, but that the clinical history being so apparently that of an epithelioma, this morbid condition only was immediately sought for. In the face of this report, and the pain being so severe, I determined to freely remove the ulcer. This I did under chloroform; the operation gave the patient almost immediate relief from the pain, and it has never been so intense since. A day or two following the telegram, Mr. Targett very kindly wrote me:—"The specimen from the hard palate has not given a sufficiently definite result for an opinion as regards malignant disease, therefore it will be better to wait until a second series of sections have been prepared. The general features are those of chronic inflammation —not growth—but I have met with a dense form of epithelioma in the palate which was not unlike this."

The patient was now progressing favourably, and I was almost inclined to be hopeful; but on January 23rd, only six days from the receipt of the specimen, I received the final report from Mr. Targett. It has proved, alas! as accurate as it is brilliant. He says: "Further examination of this specimen confirms the previous report—that it is not an epithelioma. Owing to the ulceration there is a thick layer of inflammatory and necrotic tissue in the base of the ulcer. But beneath this there lies a thin stratum of spindle-celled tissue which I think must be regarded as sarcomatous. After a most careful examination I feel convinced that the new formation is really a spindle-celled sarcoma, and that this has become covered with much inflammatory tissue in consequence of the ulceration."

After this report I felt that the only chance the patient had was in removal of both superior maxillæ. This or any further operation was declined. The disease has followed the course of

first completely involving and destroying the hard and soft palates, then invading the right maxillary antrum and expanding, the growth reaching the zygomatic fossa; meanwhile the pressure below and to the outside had entirely crushed the right eye, the apparent route to the cranial cavity being through the spheno-maxillary fissure, then the sphenoidal fissure and optic foramen; the basi-sphenoid became thickly infiltrated through direct extension from the palate. The whole right side of the face was distorted into a large tumour, which had ulcerated in several places, and discharged exceedingly foul sanious pus. The poor fellow, exhausted by pain, hemorrhage, and septic absorption, died on June 29th.

It would appear to be almost fruitless, with our present pathological knowledge, to discuss the cause of such a condition. One can talk of fœtal remnants, and insinuate a bacteriological stimulus, and this seems to be about as far as we can go; indeed, the inclusion of fœtal tissue is readily suggested by the "fact that nowhere more than in the palate does the body suffer from arrest and perversion of development."[1]

Professor Ziegler[2] states that "Sarcomata originate in structures belonging to the connective tissue group, *i.e.*, in formed or unformed fibrous tissue, in cartilaginous, bony, mucous, lymphoid, neurogliar, or adipose tissue. The transformation of these into tumour tissue is effected by the growth and multiplication of the constituent cells. It is of great interest to note that cells which form part of what we might call congenital heteroplastic foci may often serve as the starting-point of sarcoma."

Here then in the palate we may have all the essential elements lying dormant; but what stimulates them into proliferation? Is it a bacillus?

Mr. Paget's researches show that sarcoma of the palate occurs equally in man and woman, more in the soft than in the hard palate, more common on left side than on right, and the average age would be about forty. They are sometimes encapsuled, though this was not so in my case, as witness

[1] "Tumours of the Palate," *St. Bart.'s Reports*, 1886.

[2] *General Pathological Anatomy*, 1897.

Mr. Christopher Heath's[1] case, in which the growth "shelled out with a distinct capsule." Mr. Heath also saw Sir William Fergusson remove a similar growth half-an-inch in diameter.

Evidently the tumours seem mostly to be of the round-celled variety, Mr. Treves's[2] case, No. 11 in Mr. Paget's list, being the only one in the list distinctly stated to be spindle-celled.

It is, perhaps, profitable to remark in conclusion how rare these growths of the palatine process of the jaw are, in comparison with the sarcomatous epulides of the alveolar process, and also the much greater infrequency of their occurrence in the hard than in the soft palate.

Finally I must express my sincere thanks to the Clinical Research Association for the indispensable help afforded me, and also for the very beautiful drawing, reproduced with this article.

THE X-RAY HISTORY OF A FRACTURE.

BY

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ON November 20th, 1899, a boy, aged 11 years, whilst at play, received a push from behind and fell on the point of his left elbow. When admitted to the casualty room of the Bristol Royal Infirmary, there was great distortion of the limb, the elbow being carried completely backwards. Fracture of the lower epiphysis of the humerus was diagnosed, and before the reduction of the fracture, the limb was temporarily supported on a straight wooden splint and a skiagram (Fig. 1) was taken. This showed a fracture through the diaphysis of the lower end of the humerus—the epiphysis with the part of the shaft immediately above it, and the condylar ridges of the humerus,

[1] *Injuries and Diseases of the Jaw*, 1894.

[2] *Lancet*, 1886, ii. 869.

Fig 1.

Fig. 2.

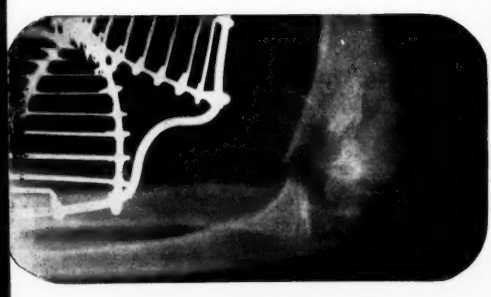

Fig. 3.

Fig. 4.

Fig. 5.

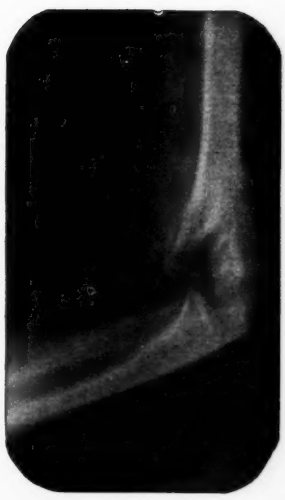

Fig. 6.

Fig. 7.

Fig. 8.

being carried directly backwards. There was no dislocation, the trochlea being in the great sigmoid cavity.

The fracture was easily reduced, and the limb put up on a wooden angular splint, the fracture being apparently in good position. Fig. 2 is the skiagram taken the day after the accident (November 21st). The elbow was very much swollen. Clinically the fracture seemed to be in good position, but the skiagram shows the fragments in anything but apposition. The fractured shaft of the humerus is nearly touching the radius and ulna, and the lower fragment is still much displaced backwards. This being the case, the boy was admitted to the Infirmary under the care of Mr. Bush (to whom I am indebted for permission to publish the case). He was put under an anæsthetic, and the arm was manipulated till the fragments seemed in better position. He was put to bed with a wire angular splint applied to the flexor surface of the arm.

Fig. 3 was taken the day after the operation. It will be seen that the fragments are in much better position, but the end of the fractured shaft of the humerus is still too near the radius and ulna. (The wire splint is seen applied to the arm. Note the incomplete ossification of the trochlea and olecranon.) To remedy this, extension was applied in the following manner: A weight of 10 lbs. was attached to the splint on the forearm and carried over a pulley at the foot of the bed, counter-extension being applied by means of a bandage carried under the axilla and fastened to the head of the bed, the wrist being at the same time supported by a sling round the neck.

Fig. 4 was taken the day after extension was applied. In this it will be seen that the lower fragment is already brought nearly in line with the shaft of the humerus.

Fig. 5 was taken on December 9th, nineteen days after the accident. Callus is distinctly to be seen forming between the fragments.

Fig. 6 was taken on December 28th, five weeks after the accident. There was a large mass of callus on the front of the humerus to be felt at this time, but the only evidence of it in the skiagram is in the spicules of new bone to be seen on the anterior surface of the shaft of the humerus and in the new